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VOLUME V
SOUTH PACIFIC

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THE WORLD

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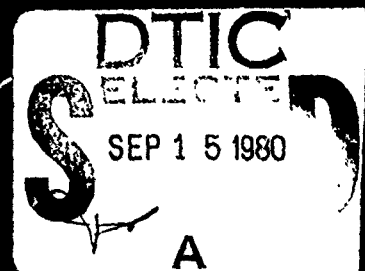
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VOLUME V

PACIFIC OCEAN

(REVISED 1979)

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The eight volume series of the U.S. Navy Marine Climatic Atlas of the World has had wide acceptance as an authoritative reference for large scale operational planning and applied research. This volume, based on nearly 20 years of additional data, is an update of Volume V (U.S. Navy Marine Climatic Atlas of the World, 1959) and is designed to fulfill the same requirements: wind, air temperature, sea surface temperature, humidity, precipitation, visibility, ceiling, barometric pressure, sea ice, ocean tides and ocean waves.		

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OF THE WORL

VOLUME V
SOUTH PACIFIC OCE

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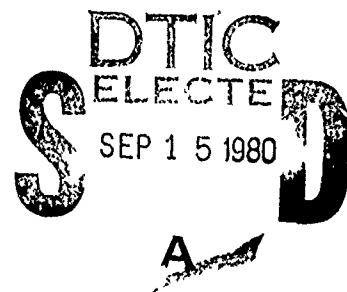
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U.S. NAVY CLIMATIC ATLAS OF THE WORLD

VOLUME V PACIFIC OCEAN



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FOREWORD

A joint feasibility study for producing a combined climatological/oceanographic atlas of the water areas of the world was undertaken by the Naval Weather Service Command and Naval Oceanographic Office in 1969. The results of this feasibility study showed a significant increase in surface marine observations since publication of the original U.S. NAVY MARINE CLIMATIC ATLAS OF THE WORLD. The additional data plus recommendations for revised content and format, provided by various Naval Weather Service fleet units and field activities, warranted the updating of the entire series of marine climatic charts of the world. The data base for this revision of Volume V of the U.S. NAVY MARINE CLIMATIC ATLAS OF THE WORLD contains about 45 percent more data than was available when Volume V was published in 1959.

The Naval Weather Service Detachment, Asheville, was tasked to produce a technical model of the atlas providing a sample of each type of page presentation proposed with supporting documentation. The atlas mock-up was approved by Headquarters, Naval Weather Service Command in 1971 as the model for Volume I (1974), Volume II (1977), Volume III (1976), and Volume IV (1978) as well as this Volume of the series.

ACKNOWLEDGEMENT

The revision of the U.S. NAVY MARINE CLIMATIC ATLAS OF THE WORLD series is managed by the Naval Weather Service Detachment, Asheville, for the Commander, Naval Oceanography Command (formerly the Director, Naval Oceanography and Meteorology). This volume was prepared at the National Climatic Center.

Specific acknowledgement is made to the following members of the National Climatic Center: Project Leaders R. G. Quayle, J. D. Elms and D. C. Fulbright; Ms. Mary Paglia and Mr. Grant W. Goodge for their assistance in the editorial evaluation and analyses of the data; Mr. R. H. Courtney for technical work.

The oceanographic part was based upon data provided by the U.S. Naval Oceanographic Office, whose contribution is acknowledged with thanks.

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METEOROLOG

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PART I - METEOROLOGY

INTRODUCTION

The eight-volume series of the U.S. NAVY MARINE CLIMATIC ATLAS OF THE WORLD has had wide acceptance as an authoritative reference for large scale operational planning and applied research. This volume, based on nearly 125 years of data (1854-1978), is an update of Volume V (U.S. Navy *Marine Climatic Atlas of the World*, 1959), and is designed to fulfill the same requirements. This volume is not, however, a one-for-one revision. Some of the data presentations have been changed and wave statistics have been added. No upper air charts are presented since in recent years several comprehensive volumes of upper air data have been published separately: (*Climate of the Upper Air: Southern Hemisphere*, Volume I, *Temperatures, Dew Points, and Heights at Selected Pressure Levels*, NAVAIR 50-1C-55, 1969; Volume II, *Zonal Geostrophic Winds*, NAVAIR 50-1C-56, 1971; Volume III, *Vector Mean Geostrophic Winds*, NAVAIR 50-1C-57, 1971; Volume IV, *Selected Meridional Cross Sections of Temperature, Dew Points, and Height*, NAVAIR 50-1C-58, 1971).

The descriptive explanations which follow give details concerning the quality control and processing of the observations and the development of the charts and graphs. Limitations imposed by the quality of the data and the methods adapted to help overcome them are also discussed.

This Atlas is the result of a concerted and extensive effort by many people (aided by modern data processing equipment) to present a detailed and useful ocean climatology.

THE GENERAL PLAN OF THE CHARTS

The "point statistics" common to land climatology are made possible by the maintenance of weather records at fixed locations for long periods. Such statistics are not generally available for Ocean Basins. In the past three decades the Ocean Weather Station (OWS) and, more recently, data buoy networks maintained through the cooperation of several maritime nations, have been a real step toward fixed point locations. However, no ocean weather stations or buoys were available for the Southern Hemisphere. Transient ships' logs of surface weather observations are the only source of detailed knowledge of southern ocean climate.

It is sometimes possible to select areas small enough to permit an approximation to the "point statistics" of land stations where the number of observations is sufficient. For this atlas 37 representative areas were selected. These are outlined on the base chart and numbered. Graphs and Tables for these areas have been placed on the facing page for easy reference to the base chart. Unfortunately, many of the areas lack sufficient data for meaningful statistics for certain seasons.

THE OBSERVATIONS AND THEIR PROCESSING

Variations in definitions, codes and units of measurements used by maritime nations for recording and punching marine observations have resulted in over 20 different formats (or "decks") of magnetic tape data available for use at the National Climatic Center. These data have been converted to a common format. For a more detailed explanation of the conversion procedures, the reader is referred to the Tape Data Family-11 (TDF-11) Reference Manual (National Climatic Center, 1968). This tape deck was the primary data source for the Atlas projects. Funding for the development of TDF-11 was provided primarily by the Naval Weather Service Command with supplemental support from the Environmental Science Services Administration (now NOAA) and the Department of Defense.

The data was subjected to complex quality control procedures before processing. First, duplicate observations (which entered the data base from different sources) were eliminated. The remaining observations were then checked for internal consistency. Elements failing to meet the internal consistency checks were either adjusted or eliminated. The data were then subjected to an extreme value check. These quality controlled data have been retained in a separate tape file designated as the U.S. Navy Marine Atlas Work Tapes.

Regardless of the amount of quality control to which marine observations are subjected, there are many inherent problems which can be corrected in only a general way. Among these are: the difficulty in taking observations of meteorological elements from an unstable platform, different levels of observer experience, recording errors, variations in observing and coding practices, punching errors, the scarcity of observations over vast areas, and the effect of weather elements themselves on measurements. Ships may avoid bad weather when possible (Quayle, 1974), thus decreasing the amount of bad-weather data; or they may slow down in foul weather, thus making more observations and increasing the data sample.

Complete observations (including all elements) from transient ships are steadily becoming more common. Ships' weather logs of past decades, incomplete by today's standards, show wind direction and speed to be the elements almost invariably recorded. From a survey of the data available for this Atlas, the percentage of observations containing other basic weather elements is as follows:

<i>Elements</i>	<i>Percent</i>
Wind	96
Air Temperature	95
Total Cloud Amount	95
Sea Temperature	89
Sea Level Pressure	75
Visibility	65
Present Weather	64
Wet Bulb Temperature	56
Low Cloud Amount	43
Waves	37

Because of incompatible observing or coding procedures, many elements had to be eliminated from the computations. This significantly reduced the percentages of the affected elements in the above table.

Some peculiarities of selected elements are listed below.

PRECIPITATION – This element is one of those most subject to error in interpretation. This derives from a number of causes such as coding practices, observers' preference for certain present weather codes and other biases.

SEA SURFACE TEMPERATURE – This element is recorded with a fairly high frequency in marine observations. The various methods of recording (bucket versus intake, etc.) have been combined for this Atlas. In data sparse regions, satellite data for the period 1973 to mid-1978 were used for guidance but were not included in the graphs. In addition, all data associated with oceanographic hydrocast and bathythermograph samples (expendable and otherwise) were included.

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Cloud Amount	95
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Sea Level Pressure	89
Visibility	75
Weather	65
Air Temperature	64
Cloud Amount	56
	43
	37

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SEA LEVEL PRESSURE – This element is one of the least accurate in an absolute sense because of instrument, coding and conversion errors. To be capable of registering accurate pressure readings, barometers used on shipboard generally require more frequent calibration than they receive. Despite the inaccuracies of the individual readings, however, the large scale patterns and gradients are relatively accurate.

AIR TEMPERATURE – This element is considered to be generally reliable. However, in the tropics, as the result of poor instrument exposure, observed temperatures on transient ships under sunny conditions appear consistently high. This data subset influences primarily the distribution of maximum temperatures (99th percentile) while the minimum (1st percentile) and mean temperatures are relatively unaffected.

VISIBILITY – It is difficult to measure visibility at sea because of the lack of reference points. Also, some observers report reduced visibility at night because of darkness. The coarseness of the coding intervals, however, tends to minimize serious biases in the summarized data.

WAVE DATA – Suitable quantitative wave records are available only since the late 1940's. This, coupled with an apparent reluctance on the part of many observers to take wave observations, particularly in the early years, leaves waves as the least often recorded element in marine observations. The estimation of wave heights is very subjective and depends upon the experience of the observer and the size of the ship from which the observation is taken. Wave heights reported by most transient ships appear to be about 10% too low when compared to reference measurements. Wave periods also appear to be somewhat low. Adjustment for these apparent biases has not been made in this Atlas.

THE ISOPLETH ANALYSES

The climatic data in this Atlas are presented by isopleths (lines connecting points of equal magnitude) of long-term climatological scalar fields supplemented by graphs and tables. The isopleth analyses were completed cooperatively by a team of meteorologists. The basic charts were automatically plotted from one or two degree area summaries for the entire ocean basin.

As a further aid to data interpretation, the analysts made use of the observation count which was plotted with all summarized data. Additionally, continuing reference was made to the marine atlases and supplemental publications listed in the bibliography.

Extreme caution must be exercised when using statistics south of about 40°S. Data were extremely sparse in this area and a great deal of subjectivity was required in map analyses. A glance at the data coverage for tables and graphs in the

vicinity of any given ocean area being studied will give a good indication of data coverage.

THE GRAPHS AND TABLES

To supplement the isopleth analyses, graphs and tables are presented for each representative area having at least marginal data coverage (about 15 observations). The graphs and tables, in most instances, represent the objective compilation of available raw data for specified areas without regard to suspected biases or inconsistencies.

Since the final isopleth analyses reflect both objective and subjective considerations, differences may be found when comparing the graphical data for a representative area with the analyses.

THE INDIVIDUAL SURFACE CHARTS

The legend is designed to explain data content — tables, graphs and isopleths. Each legend contains detailed instructions on how to read the tables or graphs. The following paragraphs contain additional remarks likely to be of interest to those called upon to interpret the data and provide answers to specific operational questions.

Most of the graphs and tables allow approximation of the empirical probability of occurrence of selected criteria. This is a major factor in assessing the risk involved in operational planning. For certain elements, standard deviations are given on the graphs to provide a measure of relative variability. The standard deviation on these graphs is denoted by 's' and was computed using the expression:

$$s = \left[\frac{N \sum x_i^2 - (\sum x_i)^2}{N(N-1)} \right]^{1/2}$$

where N is the number of observations in the sample and x_i is the i th realization of the random variable X. The use of (N-1) in the denominator gives the best estimate of the population standard deviation.

SURFACE WINDS

Surface wind is the element most commonly observed and

recorded. The wind distribution is presented by a combination of two graphic forms — the bar graph and the contingency table. The bar graph corresponds to the percent scale at the top of the square and gives reference to the wind direction frequency. The contingency table gives the percent frequency of each wind speed class within each direction. By adding the totals lines at the bottom of the graph it is possible to approximate the percent frequency of wind speed occurrence for selected criteria. For the example graph in the legend, 71% of all winds were less than 17 knots.

AIR TEMPERATURE

The percentage of temperatures greater than or equal to 20°C and mean air temperature were selected for isopleth analysis in response to requests by a number of users who considered these to be operationally significant. The mean temperature for each wind direction and calm is shown by dots in the graph opposite each direction and corresponding to the temperature scale at the bottom. The temperature range and scale may vary from area to area and month to month.

A conversion of °C to °F appears in Fig. 1. This is applicable to all temperature information (air, wet bulb, dew point, sea surface).

°C	°F	°C	°F	°C	°F	°C	°F
-12	10.4	-1	30.2	10	50.0	21	69.8
-11	12.2	0	32.0	11	51.8	22	71.6
-10	14.0	1	33.8	12	53.6	23	73.4
-9	15.8	2	35.6	13	55.4	24	75.2
-8	17.6	3	37.4	14	57.2	25	77.0
-7	19.4	4	39.2	15	59.0	26	78.8
-6	21.2	5	41.0	16	60.8	27	80.6
-5	23.0	6	42.8	17	62.6	28	82.4
-4	24.8	7	44.6	18	64.4	29	84.2
-3	26.6	8	46.4	19	66.2	30	86.0
-2	28.4	9	48.2	20	68.0	31	87.8

Fig. 1. Temperature Conversion — Celsius to Fahrenheit.

T-H INDEX AND TEMPERATURE EXTREMES

The American Society of Heating and Ventilating, as early as 1923, introduced a term called "effective temperature"

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°C	°F	°C	°F	°C	°F	°C	°F
-12	10.4	-1	30.2	10	50.0	21	69.8
-11	12.2	0	32.0	11	51.8	22	71.6
-10	14.0	1	33.8	12	53.6	23	73.4
-9	15.8	2	35.6	13	55.4	24	75.2
-8	17.6	3	37.4	14	57.2	25	77.0
-7	19.4	4	39.2	15	59.0	26	78.8
-6	21.2	5	41.0	16	60.8	27	80.6
-5	23.0	6	42.8	17	62.6	28	82.4
-4	24.8	7	44.6	18	64.4	29	84.2
-3	26.6	8	46.4	19	66.2	30	86.0
-2	28.4	9	48.2	20	68.0	31	87.8

Fig. 1. Temperature Conversion – Celsius to Fahrenheit.

T-H INDEX AND TEMPERATURE EXTREMES

The American Society of Heating and Ventilating, as early as 1923, introduced a term called "effective temperature"

which is a measure of comfort based on temperature and humidity. This is the term we call THI (Temperature-Humidity Index). It has been empirically determined that a majority of people will be uncomfortable when the index reaches 24°C. THI is computed by the following equation, adapted from one described by E. C. Thom, 1957:

$$THI = 0.4 (T_d + T_{wb}) + 4.7778$$

where: T_d = Dry Bulb Temperature (°C)
 T_{wb} = Wet Bulb Temperature (°C)
 THI is in degrees Celsius

Isopleths of the 1% and 99% levels of air temperature have been selected to present extreme temperature conditions. The graphs show air temperature versus wind speed. Use may be made of these charts to determine the extent of discomfort likely because of extreme heat or cold. They may also be used to estimate the likelihood of superstructure icing.

Ice accretion is a complicated process that depends upon sea conditions, temperature, wind and the size and behavior of the ship. Superstructure icing can affect all ships but is more dangerous for smaller vessels. Icing potential exists when the air temperature falls below the freezing temperature of sea water (usually about -2°C) with the wind speed equal to or greater than 11 knots. The lower the temperature and higher the wind speed, the greater the icing potential. Ice accretion may become quite severe with temperatures below -9°C and wind above 34 knots.

SEA SURFACE TEMPERATURE

Sea surface temperature is recorded with fairly high frequency in marine observations. The 1% and 99% isopleths give estimates of the extremes that may be encountered at any location. The graphs are simple cumulative percent frequency presentations. The temperature range and scale on the graphs may vary from area to area and month to month. As stated earlier, satellite data were used for guidance, but were not included in the graphs. Oceanographic data were included in all phases.

Sea surface temperature can be used to estimate the approximate time a person in ordinary clothes and life preserver may be expected to survive in the water. Fig. 2 is adapted from U.S. Coast Guard Manual 308 (1973).

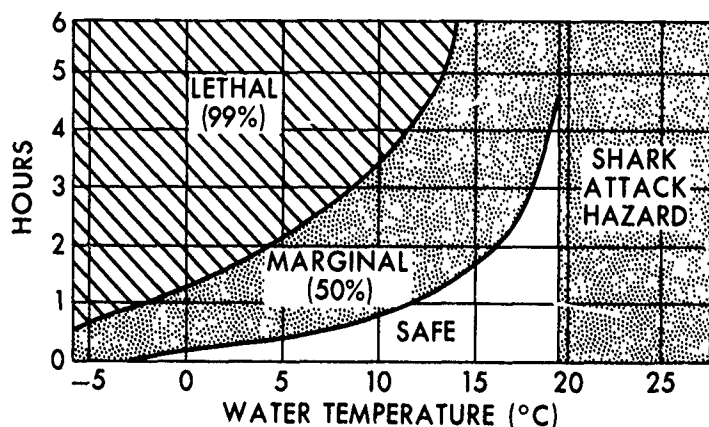


Fig. 2. Life Expectancy Without Antiexposure Suit.

Recent research has shown that chances for survival from drowning are enhanced in cool water, below about 22°C, but above critical levels (see Fig. 2).

For further reference, see Hayward *et al.* (1976) and Nemiroff (1977).

HUMIDITY

Moisture content of the atmosphere is an element which has been recorded relatively infrequently in marine observations. The 1% and 99% dew-point temperature isopleths give estimates of extremes of this element that may be encountered at any location.

The graph depicts wet bulb and relative humidity information. The cumulative percent frequency of wet-bulb temperatures may be read from the solid line with reference to values on the scale at the top of the graph. Relative humidity may be read from the dashed line with reference to the scale at the bottom of the graph.

PRECIPITATION

Precipitation graphs are intended to depict the frequency of precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow, at the time of the observation. Charts show precipitation frequency regardless of form. Based on work done in connection with Volume I (Revised), North Atlantic Ocean, present weather codes 20-27 (precipitation within the past hour) were counted in precipitation frequencies to correct an apparent observational bias. The graphs show precipitation by wind direction. The percent frequency of all observations which reported precipitation is printed in the upper right corner of each graph. The distribution of precipitation by wind direction (and calm) is given by the bar graph. This graph is based on precipitation frequency and not on wind direction

frequency. The reader should refer to the surface wind chart for the wind direction and speed distribution.

Satellite guidance was employed in data sparse areas (Rao *et al.*, 1976, 1977).

VISIBILITY

The cumulative percent frequency of horizontal visibility is presented by class intervals defined in terms of nautical miles. The percentage of horizontal visibility equal to or greater than 25 nautical miles can be obtained by subtracting from 100% the cumulative percent frequency at the "less than 25" point on each graph. Caution is advised when interpreting these instances since, because of curvature of the earth, it is virtually impossible to see 25 miles horizontally from the bridge of most ships. The supplemental table at the bottom of the graph gives percentage of visibilities less than 2 nautical miles which occurred with each wind direction and calm.

CLOUD COVER

Even with the increased data base, the quality and quantity of low cloud data is quite poor. The total cloud amount element does not suffer from this deficiency to so great an extent. The use of satellite data also bolsters confidence in the total cloud statistics. Cloud patterns derived from the marine observations and those depicted by satellites show fairly close agreement (U.S. Department of Commerce and United States Air Force, 1971).

The observation count on the graphs is that of observations containing total cloud amount. The low cloud curve on the graph is usually based on less data than the total cloud curve. This could lead to inconsistencies between low cloud amount and total cloud amount. In all cases these were resolved in favor of the total cloud by making the frequency curves coincide.

The cumulative percent frequency of a cloud amount equal to or less than the amount intersected by the curve may be read for total cloud from the solid line or low cloud from the dashed line. The percent frequency of obscurations may be determined by subtracting the cumulative percent frequency corresponding to 8/8 coverage from 100%. The bar graph portion of the figure shows the percent frequency of low cloud amount equal to or greater than 5/8 and equal to or greater than 7/8 for each wind direction and calm. Total sky obscurations are considered as 8/8 coverage for these purposes.

CEILING AND VISIBILITY

Simultaneous ceiling-visibility contingencies are presented in isopleth and tabular form. They are designed as an aid to situations where both vertical and horizontal visibility are the

y. The reader should refer to the surface wind chart and direction and speed distribution. The guidance was employed in data sparse areas (Rao 1976, 1977).

VISIBILITY

Cumulative percent frequency of horizontal visibility plotted by class intervals defined in terms of nautical miles. The percentage of horizontal visibility equal to or greater than 25 nautical miles can be obtained by subtracting 100% the cumulative percent frequency at the "less than" point on each graph. Caution is advised when using these instances since, because of curvature of the earth, it is virtually impossible to see 25 miles horizontally from the bridge of most ships. The supplemental table at the end of the graph gives percentage of visibilities less than 2 miles which occurred with each wind direction and

CLOUD COVER

With the increased data base, the quality and quantity of low cloud data is quite poor. The total cloud element does not suffer from this deficiency to so great an extent. The use of satellite data also bolsters the data in the total cloud statistics. Cloud patterns from the marine observations and those depicted by satellite show fairly close agreement (U.S. Department of Defense and United States Air Force, 1971).

Observation count on the graphs is that of observations containing total cloud amount. The low cloud graph is usually based on less data than the total cloud. This could lead to inconsistencies between low cloud amount and total cloud amount. In all cases these were in favor of the total cloud by making the frequency conservative.

Cumulative percent frequency of a cloud amount equal to or less than the amount intersected by the curve read for total cloud from the solid line or low cloud from the dashed line. The percent frequency of obscurations is determined by subtracting the cumulative percent frequency corresponding to 8/8 coverage from 100%. The bar graph at the bottom of the figure shows the percent frequency of cloud amount equal to or greater than 5/8 and equal to or greater than 7/8 for each wind direction and calm. Total obscurations are considered as 8/8 coverage for these

CEILING AND VISIBILITY

Continuous ceiling-visibility contingencies are presented in both graphical and tabular form. They are designed as an aid to the user where both vertical and horizontal visibility are the

major items of concern. Since an "aircraft" type ceiling value is not available, the ceiling height is estimated from the height of low cloud (h) when the amount of low cloud (N_h) is greater than 4/8. Total sky obscurations are also considered to be ceilings. If they are ground-based, they are considered to have a height equal to zero.

WIND - VISIBILITY - CLOUDINESS

This series of charts is designed to give the planner an estimate of the probability of occurrence of certain significant operational conditions. The conditions for optimum and poor carrier operations are those recommended by the users of the earlier atlas series. Of the elements used in these statistics, height of low cloud ceiling has the least reliability in the case of transient ship observations.

It should be noted that in both the contingency tables and the isopleths, the poor carrier operation conditions are *and/or* situations. This means if any one of the poor conditions of ceiling, visibility or wind speed exists, the event is counted as *poor*. However, in the case of optimum conditions it is an *and* situation. That is, the ceiling must be greater than or equal to 5000 feet *and* visibility greater than or equal to 5 nautical miles *and* wind 11-21 knots.

SEA LEVEL PRESSURE AND MEAN WIND

Two sets of wind statistics are presented. The vector mean wind is shown by arrows (direction of flow toward the locator dot with the resultant magnitude of the vector plotted at the end of the arrow). The scalar mean speed without regard to direction is shown by isopleth analysis. In areas of high persistence of direction, the magnitude of the mean vector is nearly as great as the scalar mean speed. Pressure graphs and charts are also shown.

WAVES (LESS THAN 1.5 AND LESS THAN 2.5 METERS)

In these analyses, the higher of the sea or swell is selected for summarization. If the heights are equal, the wave with the longer period is selected. The graphs accompanying the low wave charts (less than 1.5 and less than 2.5 meters) show wave height versus wave direction. The bar graph and the percent scale at the top of the chart give the percent frequency of waves from each direction. Indeterminate directions are combined with calms. The percent frequency of wave heights (bottom scale) may be read for each height interval and wave direction from the contingency table. The isopleth analyses of the percent frequency of heights less

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than 1.5 and less than 2.5 meters are for generally non-hazardous sea conditions.

Fig. 3 shows the conversion from meters to feet.

Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet
0	0	3.0	9.8	6.0	19.7	9.0	29.5
0.5	1.6	3.5	11.5	6.5	21.3	9.5	31.2
1.0	3.3	4.0	13.1	7.0	23.0	10.0	32.8
1.5	4.9	4.5	14.8	7.5	24.6	10.5	34.4
2.0	6.6	5.0	16.4	8.0	26.2	11.0	36.1
2.5	8.2	5.5	18.0	8.5	27.9	11.5	37.7

Fig. 3. Height Conversion — Meters to Feet.

WAVES (GREATER THAN OR EQUAL TO 3.5 AND GREATER THAN OR EQUAL TO 6 METERS)

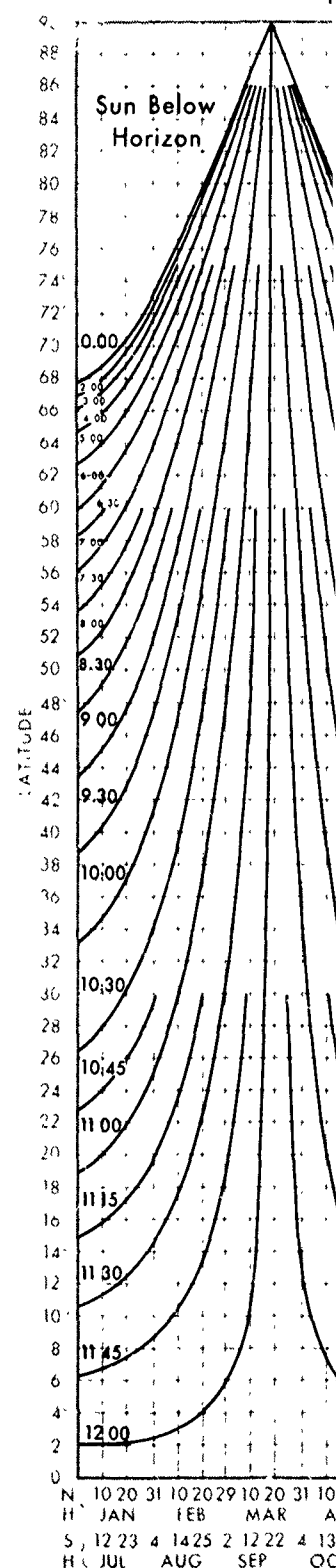
Wave heights in the greater than or equal to 3.5 and greater than or equal to 6 meter range represent increasingly hazardous conditions. Contingency tables of wave period versus wave height accompany these charts.

LOW PRESSURE CENTERS

Detailed data on extratropical cyclone tracks were not available. The data base used for the *Mariners Worldwide Climatic Guide to Tropical Storms at Sea*, NAVAIR 50-1C-61, 1974, was updated through 1976 and used for generating the tropical cyclone movement roses in this Atlas. The data presented here by 5° quadrangle include all tropical cyclones estimated to have wind speeds greater than 33 knots. The period of record is 1897-1976 for the Southwest Pacific and Australian and 1854-1976 for the South Indian. The reader is referred to the above mentioned "Guide" for more detailed information.

DURATION OF DAYLIGHT

The Duration of Daylight Chart (Fig. 4) defines daylight as the period from sunrise to sunset. The upper scale at the bottom of the chart is for the Northern Hemisphere; the lower scale is for the Southern Hemisphere. The data source was the U.S. Naval Observatory (1945), and is accurate for the entire 20th Century. Further details may be obtained from *The Daylighter* by the Navy Weather Research Facility (1960). Additional light (during twilight) may be usable for many purposes. Duration of daylight in high latitudes (poleward of about 60°) becomes increasingly dependent upon atmospheric conditions and refraction and there may be some departure from the values depicted on the charts.



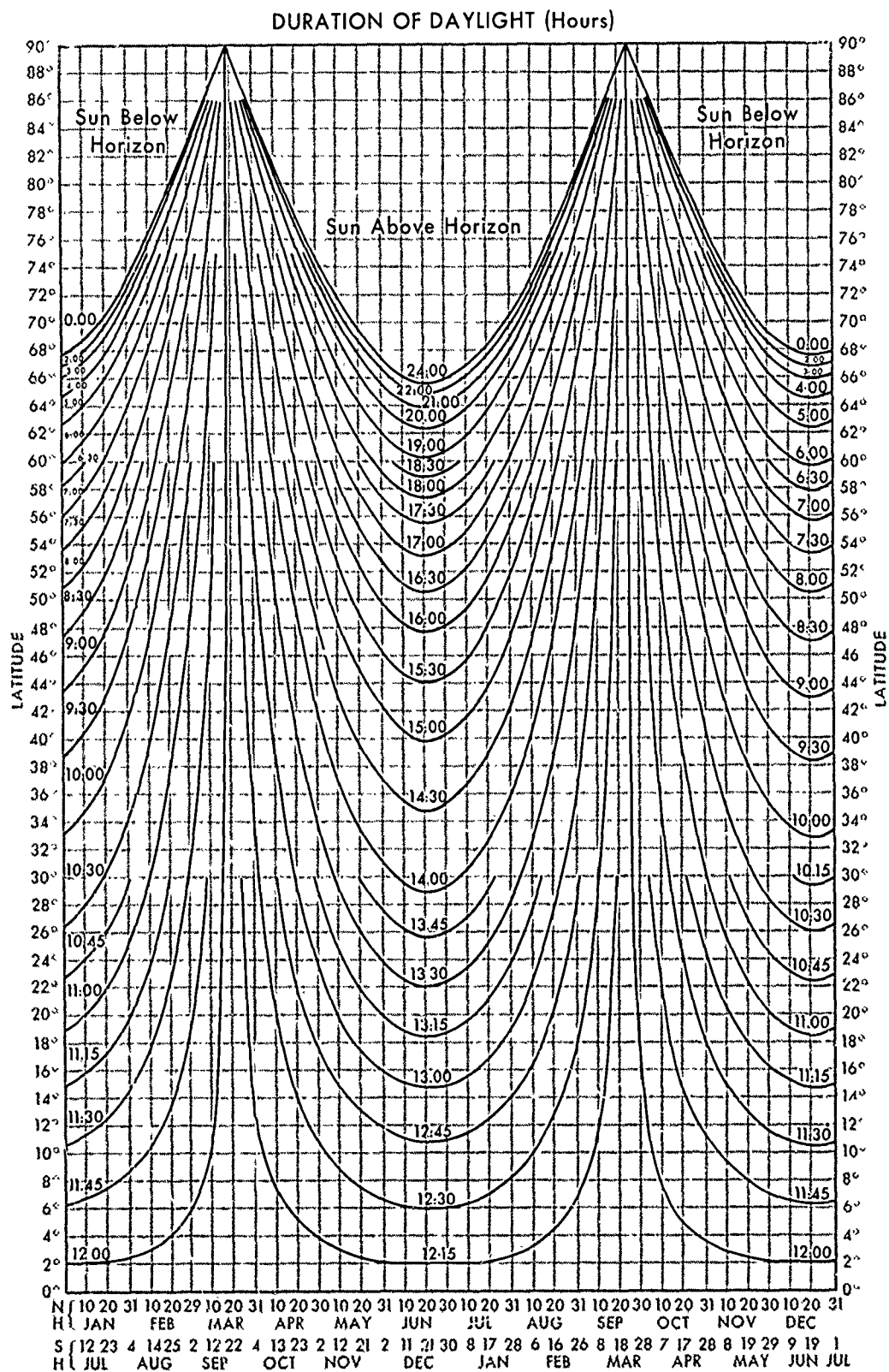


Fig. 4. Duration of Daylight.

BIBLIOGRAPHY - METEOROLOGY

American Geographical Society: *The Antarctic Atmosphere: Climatology of the Surface Environment*, FOLIO 8, New York, NY, 1967.

Crutcher, H. L. and R. G. Quayle: *Mariners Worldwide Climatic Guide to Tropical Storms at Sea*, NAVAIR 50-1C-61, Naval Weather Service Command, Washington: Government Printing Office, 1974.

Hastenrath, Stefan and P. J. Lamb: *Climatic Atlas of the Tropical Atlantic and Eastern Pacific Oceans*, University of Wisconsin; Madison, Wisconsin, 1977.

Hayward, J. S., Martin L. Collis and John E. Eckerson: *Man in Cold Water*, University of Victoria, B.C., Canada, October 1976.

Hogben, N., and F. E. Lumb: *Ocean Wave Statistics*, Her Majesty's Stationery Office, London, 1967.

Kendrew, W. B.: *The Climates of the Continents*, Oxford University Press, New York, 1942.

Ministry of Defense, USSR Navy: *Atlas of the Oceans, Pacific Ocean*, 1974.

National Climatic Center: *Quality Control Programs for Marine Data*, Unpublished, Asheville, 1974.

_____: *Tape Data Family-11 Reference Manual*, Asheville, 1968.

Nemiroff, M. J.: *Cold Water Drownings*, NOAA News, U.S. Dept. of Commerce, Washington, D.C., August 5, 1977

Quayle, R. G.: *A Climatic Comparison of Ocean Weather Station and Transient Ship Records*, NOAA, Environmental Data Service, *Mariners Weather Log*, Volume 18, No. 5, September 1974.

Rao, M. S. V., W. V. Abbott, III and J. S. Theon: *Satellite-Derived Global Oceanic Rainfall Atlas (1973 and 1974)*, NASA SP-410, National Aeronautics and Space Administration, Washington, D.C., 1976.

Rao, M. S. V. and J. S. Theon: *New Features of Global Climatology Revealed by Satellite-Derived Oceanic Rainfall Maps*, Goddard Space Flight Center, MD, 1977.

Sadler, J. C., L. Oda and B. J. Kilonsky: *Pacific Ocean Cloudiness from Satellite Observations*, University of Hawaii, 1976.

Thom, E. C.: *A New Concept for Cooling Degree Days, Air Conditioning, Heating and Ventilating*, June 1957.

U.S. Air Force, ETAC Air Weather Service: *N and A-F Standard Summaries for Selected Stations*, Asheville.

U.S. Coast Guard: *National Search and Rescue Manual*, C.G. 308 (also Dept. of the Navy NWP-37(B)), Washington, DC, July 1973.

U.S. Department of Agriculture, Weather Bureau: *Atlas of Climatic Charts of the Oceans*, Washington, 1938.

U.S. Department of Commerce and United State Air Force: *Global Atlas of Relative Cloud Cover 1967-70*, Washington, 1971.

U.S. Naval Observatory: *Tables of Sunrise, Sunset and Twilight*, Supplement to the American Ephemeris - 1946, Washington, 1945.

U.S. Navy, Chief of Naval Operations: *Marine Climatic Atlas of the World*, Volume V, *South Pacific Ocean*, NAVAIR 50-1C-532, Washington, 1959.

U.S. Navy, Naval Weather Service Command: *Marine Climatic Atlas of the World*, Volume I (Revised), *North Atlantic Ocean*, NAVAIR 50-1C-528, 1974; Volume II (Revised), *North Pacific Ocean*, NAVAIR 50-1C-529, 1977; Volume III (Revised), *Indian Ocean*, NAVAIR 50-1C-531, 1976; Volume IV (Revised), *South Atlantic Ocean*, NAVAIR 50-1C-531, 1978.

_____: *Marine Climatic Atlas of the World*, Volume VIII, *The World*, NAVAIR 50-1C-54, Washington, Government Printing Office, 1969.

_____: *Climate of the Upper Air: Southern Hemisphere*, Volume I, NAVAIR 50-1C-55, 1969.

_____: *Climate of the Upper Air: Southern Hemisphere*, Volumes II-IV, NAVAIR 50-1C-56, -57, -58, 1971.

..., L. Oda and B.J. Kilonsky: *Pacific Ocean from Satellite Observations*, University of Hawaii,

...: *A New Concept for Cooling Degree Days, Air g, Heating and Ventilating*, June 1957.

..., ETAC Air Weather Service: N and A-F summaries for Selected Stations, Asheville.

..., Guard: *National Search and Rescue Manual*, C.G. Dept. of the Navy NWP-37(B)), Washington, DC,

..., Department of Agriculture, Weather Bureau: *Atlas of Storms of the Oceans*, Washington, 1938.

..., Department of Commerce and United State Air Force: *Summary of Relative Cloud Cover 1967-70*, Washington,

..., Observatory: *Tables of Sunrise, Sunset and Supplement to the American Ephemeris* - 1946, 1945.

..., Chief of Naval Operations: *Marine Climatic Atlas of the World*, Volume V, *South Pacific Ocean*, NAVAER 50-1C-528, Washington, 1959.

..., Naval Weather Service Command: *Marine Climatic Atlas of the World*, Volume I (Revised), *North Atlantic Ocean*, NAVAIR 50-1C-528, 1974; Volume II (Revised), *Indian Ocean*, NAVAIR 50-1C-529, 1977; Volume III, *South Atlantic Ocean*, NAVAIR 50-1C-530, 1976; Volume IV, *South Atlantic Ocean*, NAVAIR 50-1C-531,

..., : *Marine Climatic Atlas of the World, Volume I, The World*, NAVAIR 50-1C-54, Washington, Government Printing Office, 1969.

..., : *Climate of the Upper Air: Southern Hemisphere*, Volume I, NAVAIR 50-1C-55, 1969.

..., : *Climate of the Upper Air: Southern Hemisphere*, Volumes II-IV, NAVAIR 50-1C-56, -57, -58,

...: *Summary of Synoptic Meteorological Observations*, (Various Volumes), Asheville, 1970-1977.

...: *World-Wide Airfield Summaries*, (Various Volumes), Asheville.

U.S. Navy Weather Research Facility: *The Daylighter*, NWRP-00-0960-037, 1960.

PART II - OCEANOGRAPHY

TIDES

The information presented (types of tides, typical tide curves, and tide ranges) is derived from tide tables. The length of record and the spacing of the observation stations are generally sufficient for most analytical purposes and enough data are available to provide a reasonably reliable picture of the tidal regimes. Tides are not considered of practical importance in the open ocean, and hence, there are no measurements in deep water.

CURRENTS

The ocean current presentations are compiled principally from ship drift reports that were forwarded by the various merchant marines to the Naval Oceanographic Office. As should be expected, the density of observations is greatest, and therefore the reliability of the presentation is best, along the major shipping lanes. From these drift observations the sets and average speeds of the prevailing currents are calculated for each 1 degree quadrangle. Considerable variation from the directions and speeds of the indicated prevailing currents can be expected, especially in areas where the current system is weak. Tidal currents predominate near shore and are subject to change in speed and direction by winds and other nonperiodic variables.

SEA ICE

It is doubtful that the edge of the mass of sea ice that surrounds the Antarctic Continent between 70°W and 160°E remains north of 60°S for any great extent or duration.

An electronically scanning microwave radiometer (ESMR) satellite sensor with a 25 km resolution indicates that the pack edge of 1/8 or greater concentration approached 60°S in the vicinity of 70°W and was northward of 60°S over several small longitude segments generally west of 120°W during periods in the austral winters of 1973-76. The edge of the mass of sea ice between 70°W and 120°W remained at least 100 nm to the south of 60°S during these four winter seasons. The pack ice edge over the entire sector retreats far to the south during the austral summer in conjunction with extensive disintegration that permits access to land areas and broad ice shelves.

In the sector west of 120°W during winter, the average latitude of the pack calculated from these limited data was located north of 60°S only in the sectors 147°W-151°W during mid-August and 138°W-149°W during mid-September. During

mid-August when the pack exceeded 60°S during 2 of the 4 years, the most northern average latitude was 59.4°S at 149°W; the pack edge extended as far north as 57°S (149°W) during 1974. During mid-September when the pack exceeded 60°S during 3 of the 4 years, the most northern average latitude was 58.8°S at 144°W; the pack extended as far north as 57°S (145°W) during 1974.

These limited data also showed that the sea ice edge, in usually a 5° to 10° longitude segment between 120°W and 180°W, was located northward of 60°S to as far as 59°S during 2 of the 4 years at mid-June and mid-July. During mid-October and mid-November when 1971 and 1972 ESMR data also were available, the pack edge at locations in this sector was located as far north as 59.5°S during 2 of the 6 years. The sea ice edge at various longitudes between 160°E and 180°E also was located as far north as 59.5°S from mid-June to mid-August during 2 of the 4 years. However, the 4- or 6-year average latitudes of the pack edge for each of these months and sectors was located south of 60°S. Aircraft and shipboard sea ice observations collected during mid-October and mid-November of Operation DEEP FREEZE also show the most northern pack edge from 170°E to 180°E to lie at least 100 nm to the south of 60°S. The pack ice edge should not be taken to be the northern extent of all sea ice, however, because belts and patches can drift considerable distances to the north.

BIBLIOGRAPHY - OCEANOGRAPHY

Gierloff-Emden, H. G.: The Humboldt Current and the Pacific land area of its effective range. Special issue of *Peterman's Geographical Reports*, 1. Quarrei, Leipzig, 1-17, 1959.

Reid, J. L.. Measurements of the California countercurrent at a depth of 250 meters. *Journal of Marine Research*, 20(2), 134-137, 1962.

Sverdrup, H. U.: Some oceanographic results of the CARNEGIE's work in the Pacific, The Peruvian Current, *The Hydrographic Review*, 8: 240-244, 1931.

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BIBLIOGRAPHY - OCEANOGRAPHY

Gierloff-Emden, H. G.: The Humboldt Current and the Pacific land area of its effective range. Special issue of *Peterson's Geographical Reports*, 1. Quarter, Leipzig, 1-17, 1959.

Reid, J. L.: Measurements of the California countercurrent at a depth of 250 meters. *Journal of Marine Research*, 20(2), 134-137, 1962.

Sverdrup, H. U.: Some oceanographic results of the CARNEGIE's work in the Pacific, The Peruvian Current, *The Hydrographic Review*, 8: 240-244, 1931.

U.S. Coast Guard: Icebreaker post-operational reports for Antarctic cruises - Series, Operation DEEP FREEZE I through DEEP FREEZE 71, Washington, DC.

U.S. Dept. of Commerce, NOAA: Tide Tables, West Coast, North and South America (including Hawaii). Tide Tables, Central and Western Pacific Ocean and Indian Ocean, 1978.

U.S. Naval Oceanographic Office: Report of the Antarctic ice observing and forecasting program - Series, 1954-1969, Washington, DC.

_____: Surface current observations below 10°N compiled from multi-national sources of ship drift data summarized by 10 squares. Unpub.

U.S. Navy: Antarctic ice charts 1973-1974, 1975-1976, Fleet Weather Facility, Suitland, Maryland.

Vallaux, C.: The question of the Humboldt current, *The Hydrographic Review*, 7(1), 66-74, 1930.

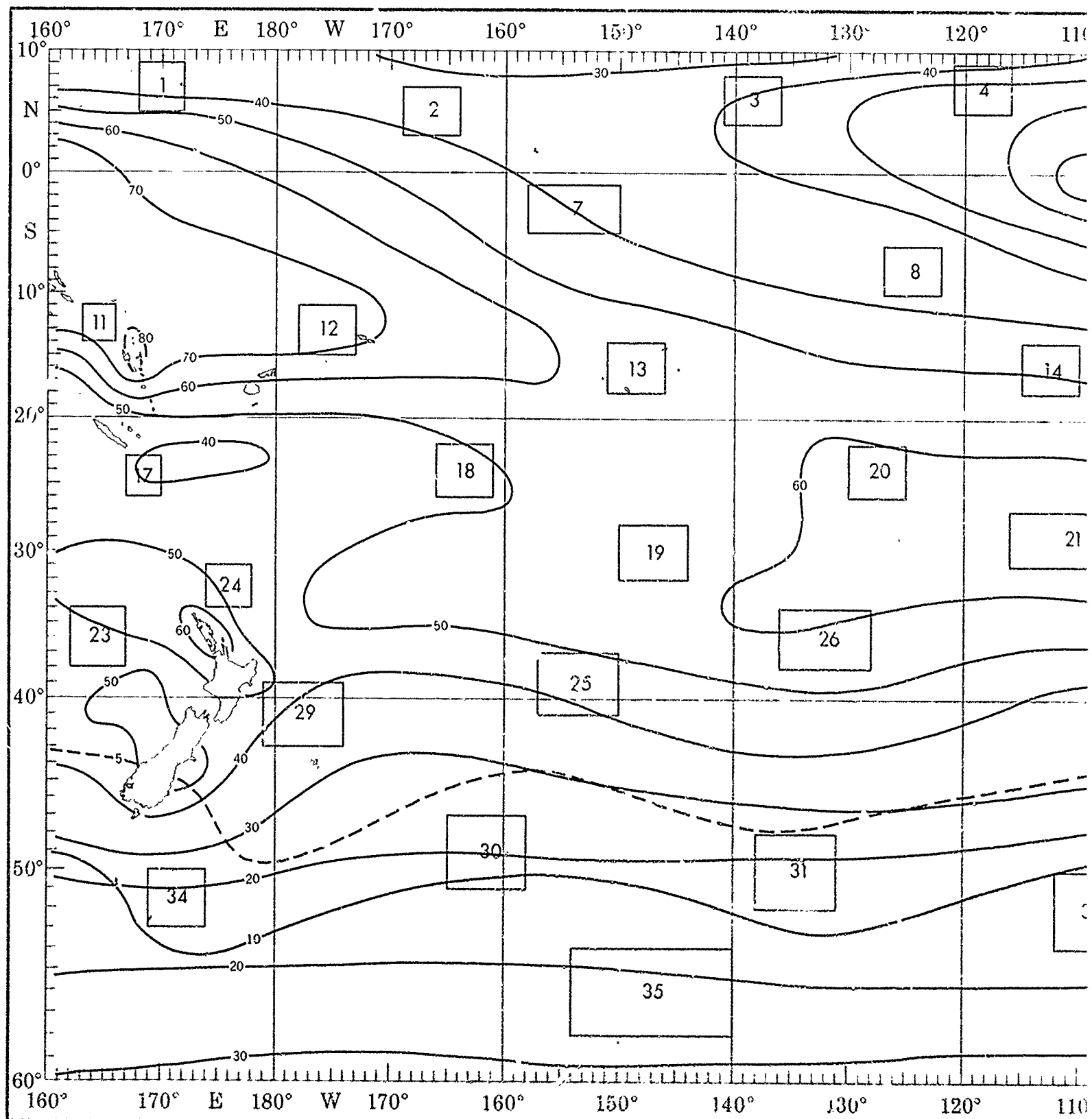
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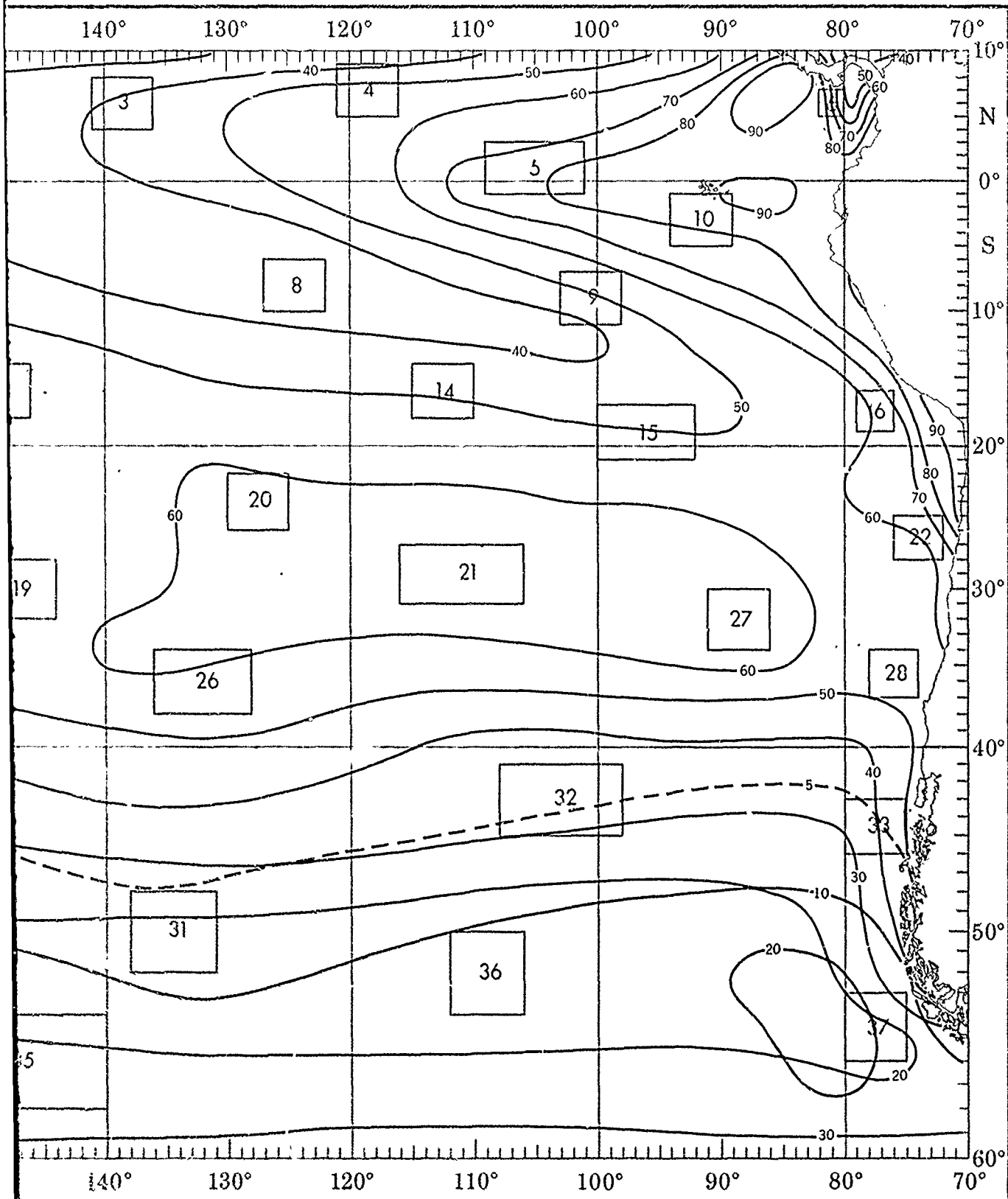
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PART I METEOROLOGY

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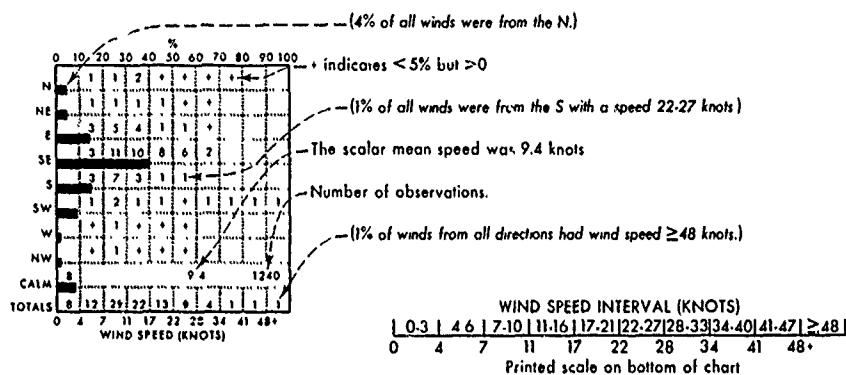


SURFACE WINDS



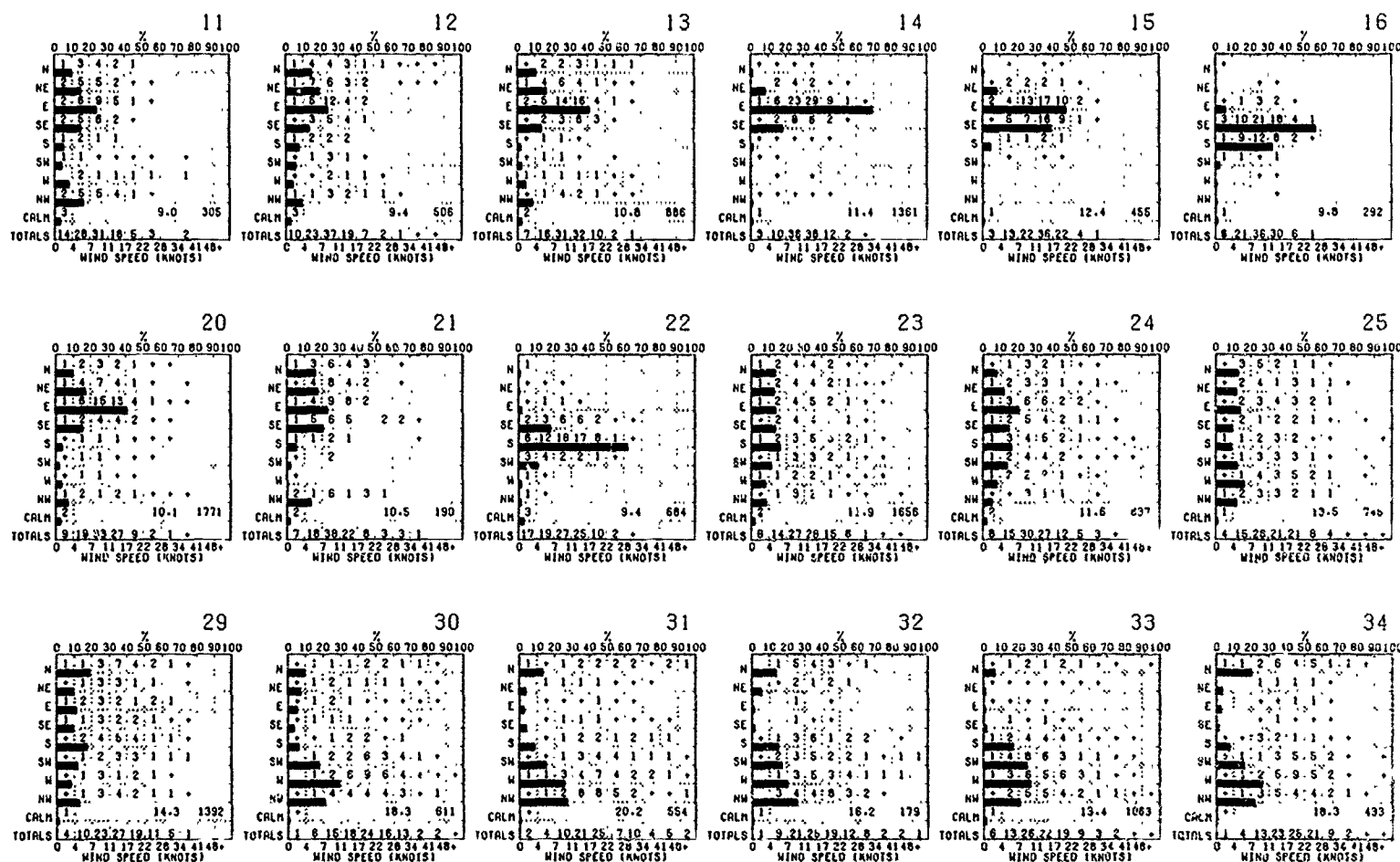
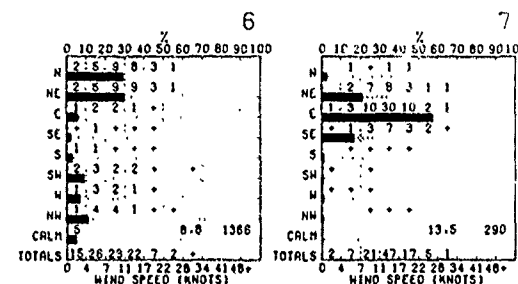
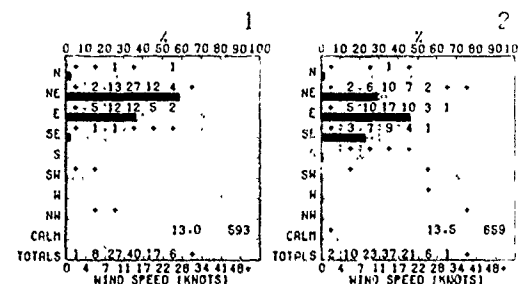
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction Speed frequency (bottom scale) Printed figures represent percent frequency of wind speeds observed from each direction



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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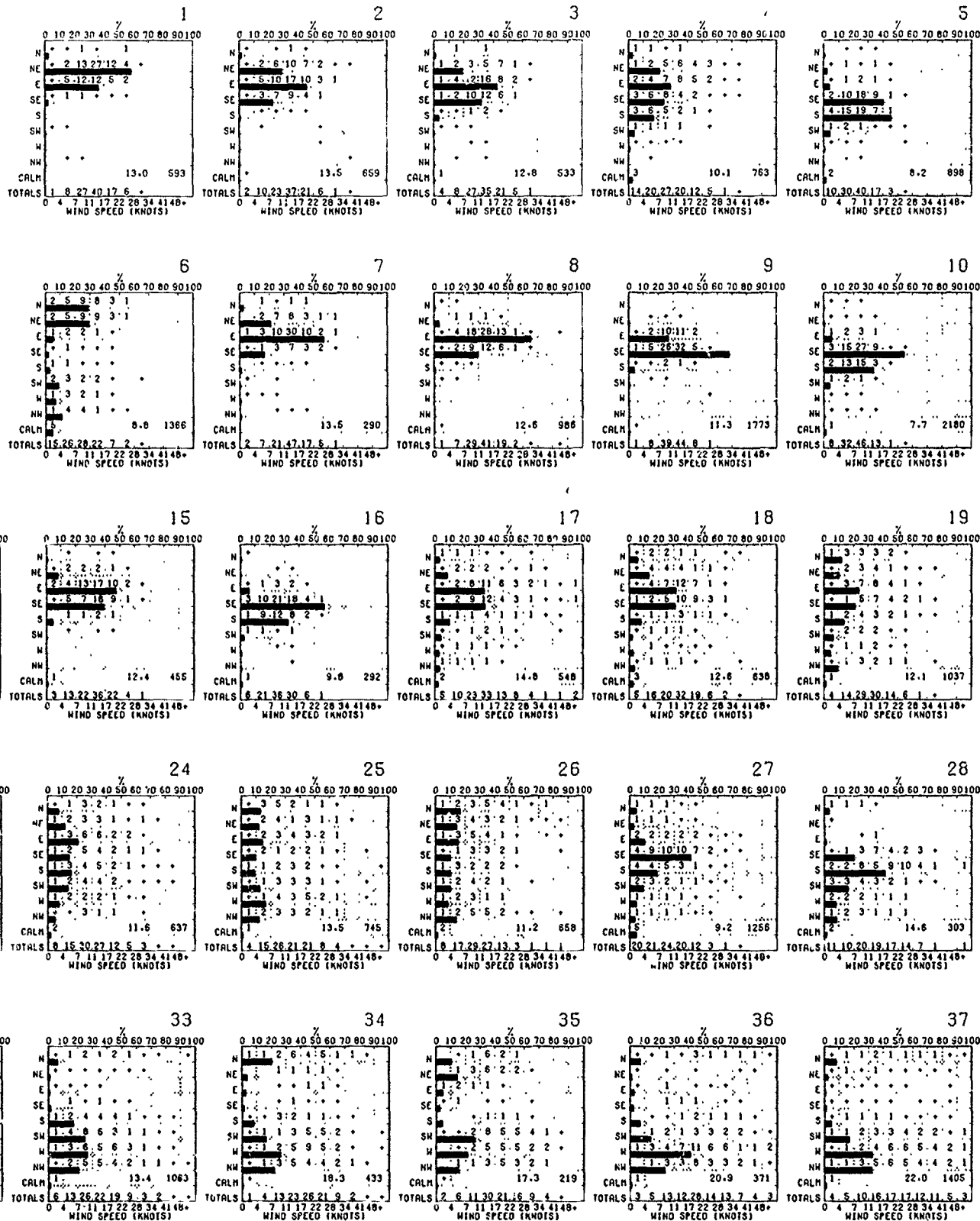
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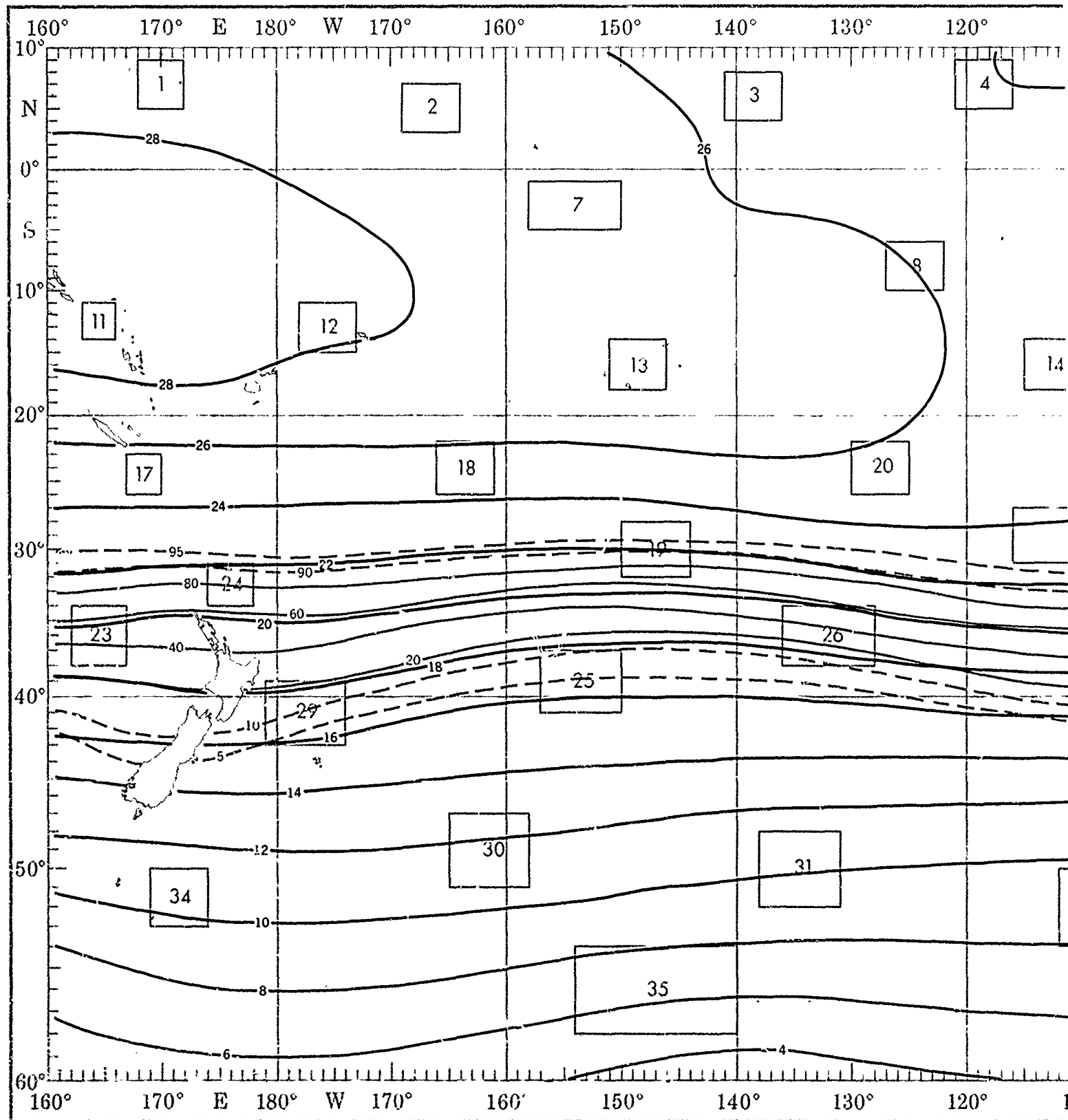
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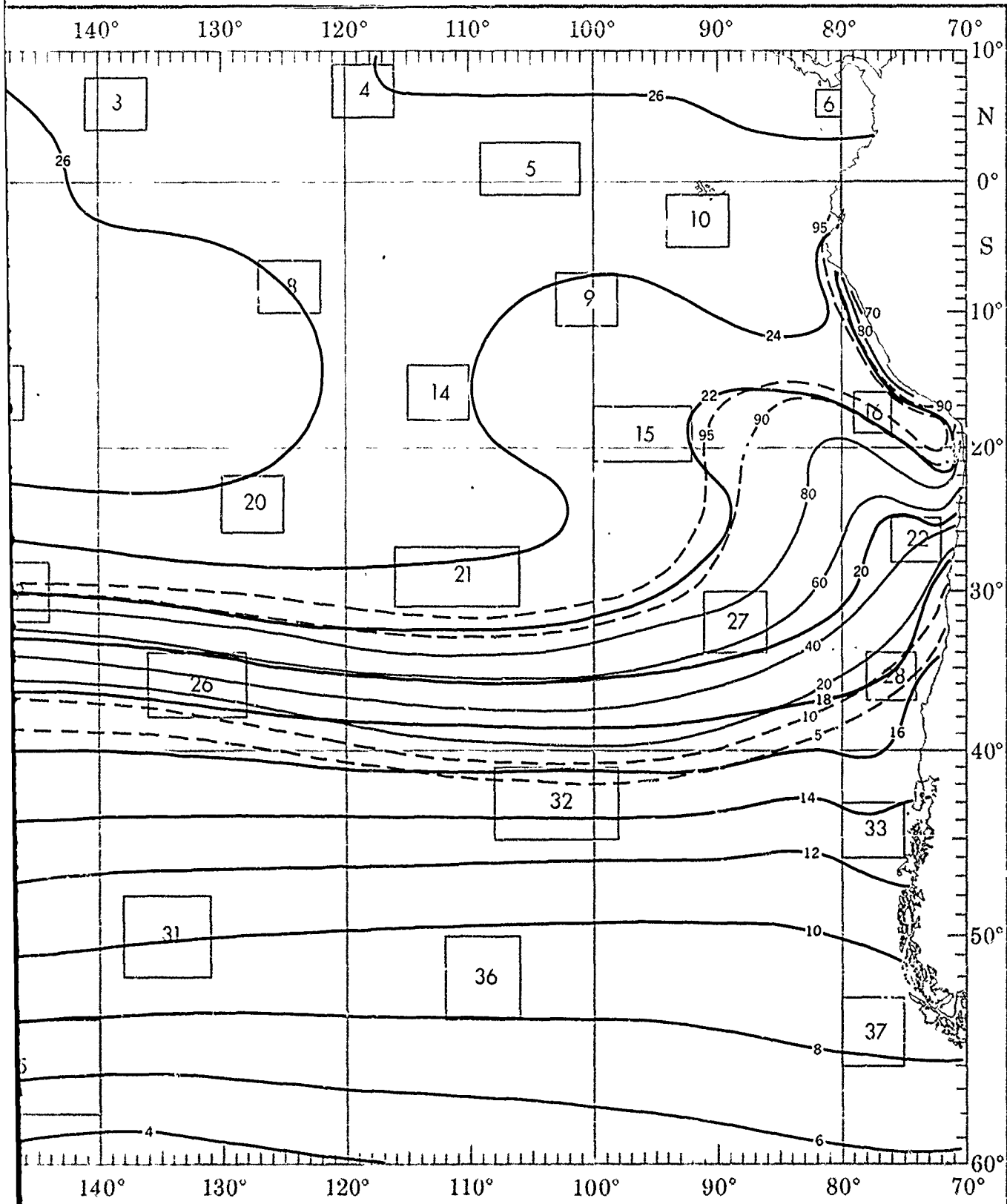
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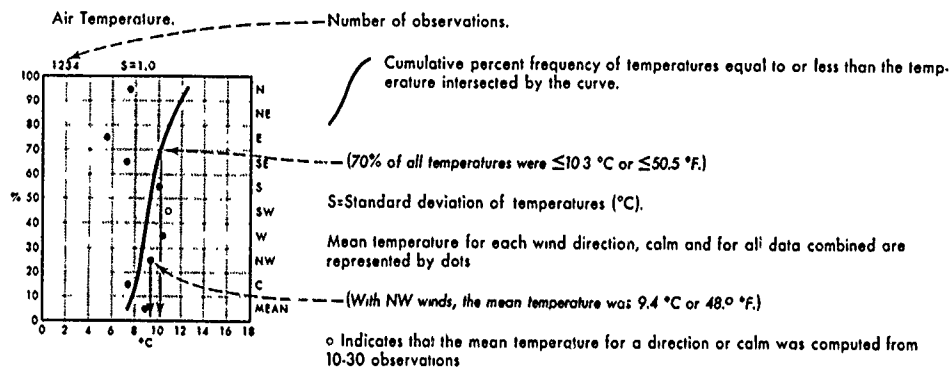
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SURFACE AIR TEMPERATURE



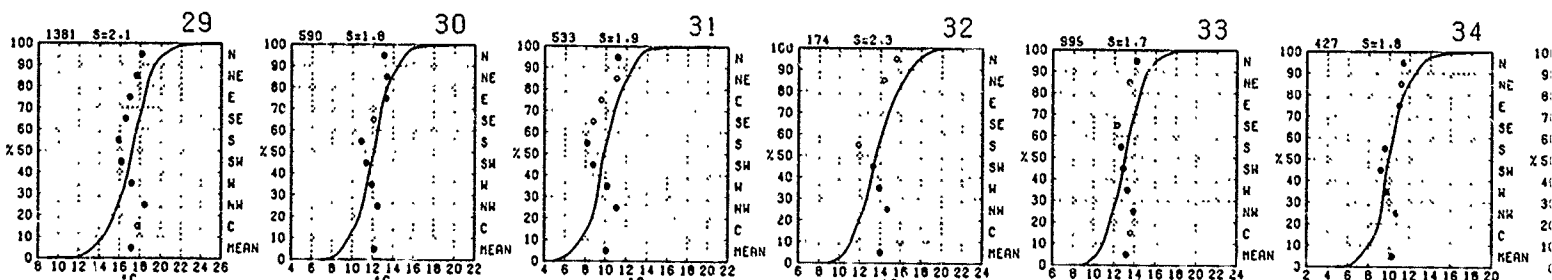
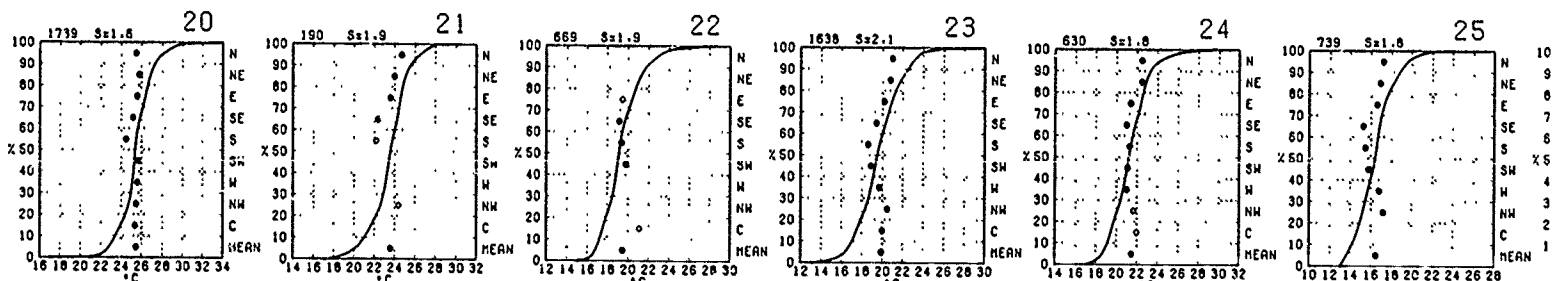
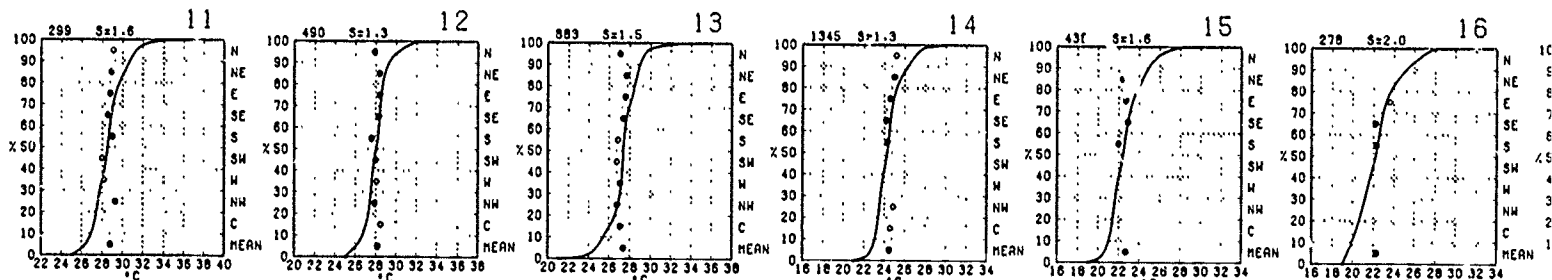
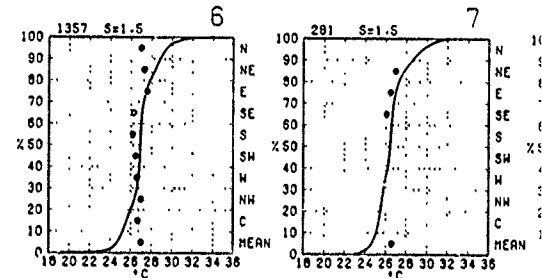
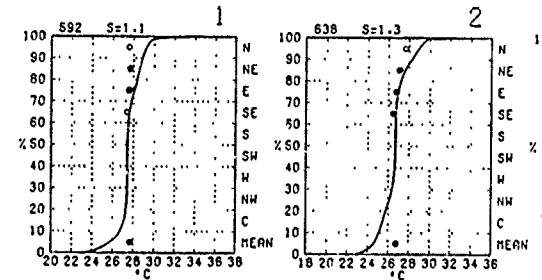
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^\circ\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^\circ\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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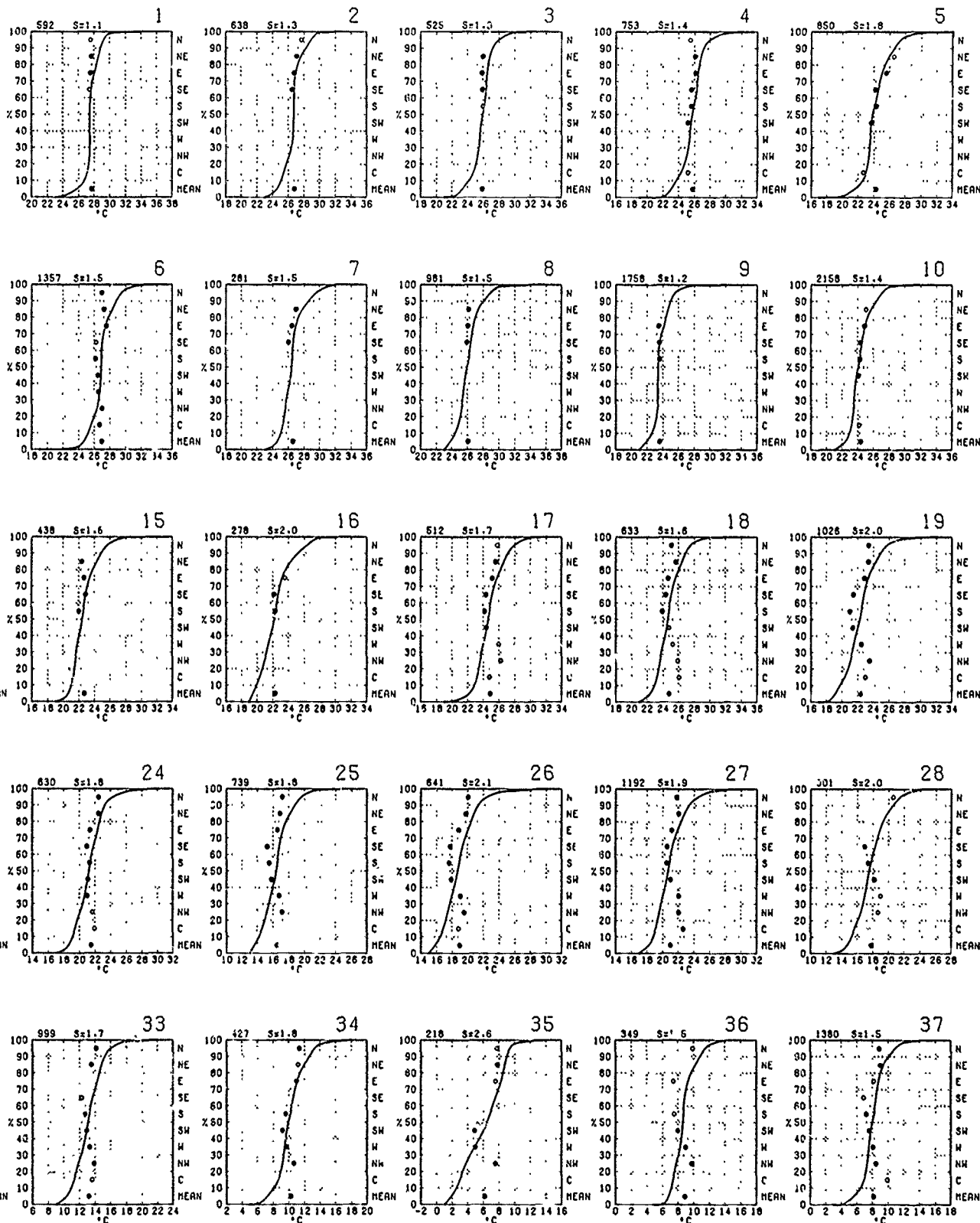
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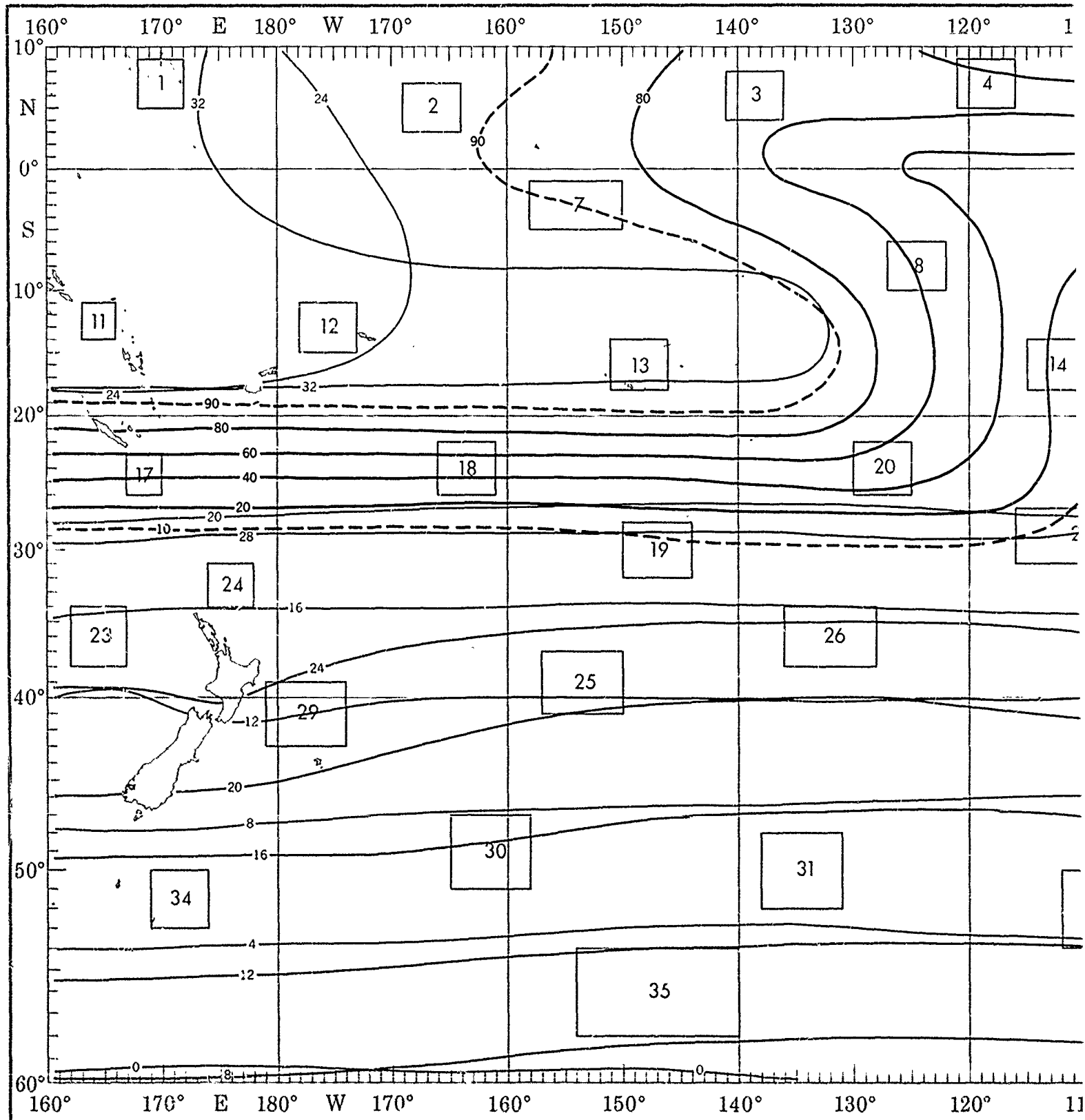
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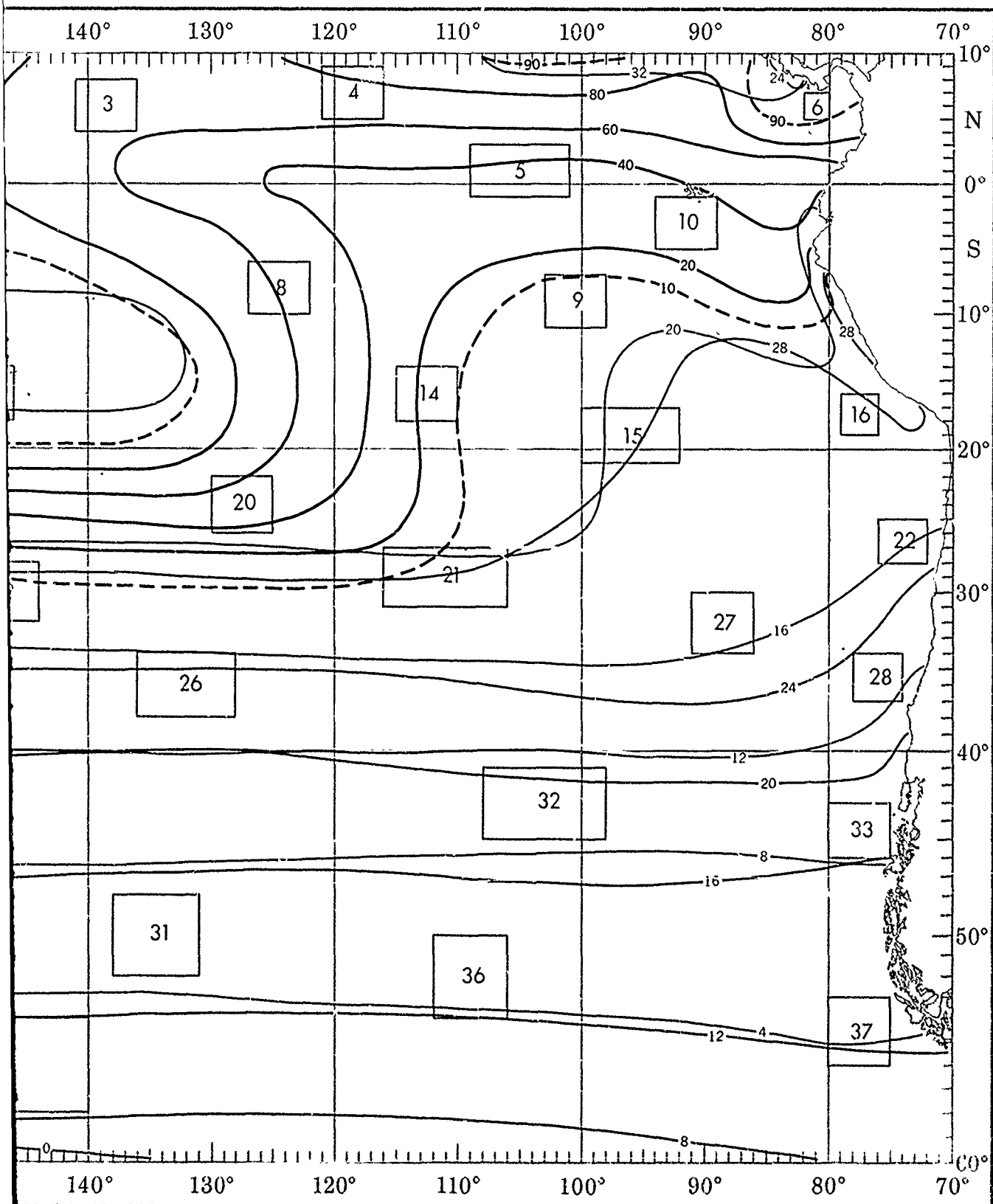
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TEMPERATURE EXT



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

WIND SPEED (kts.)

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
4.3	18	8	7	1	1
2.3	17	8	7	1	1
0.3	13	6	5	1	1
-2.3	1	+	0	0	0
-4.3	0	0	0	0	0
-6.3	+	0	0	+	+
-8.3	1	+	0	0	0
-10.3	0	0	0	0	0
-12.3	1	+	0	0	0
-14.3	1	0	0	0	0
-16.3	1	+	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates < 5% but > 0.

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text.

WIND SPEED (KTS) 1						WIND SPEED (KTS) 2					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	+	0	0	0	0	30.31	0	1	1	0	0
32.33	0	0	+	0	0	28.29	+	9	17	1	0
30.31	0	2	2	+	0	26.27	1	20	33	5	0
28.29	+	17	34	4	0	24.25	0	3	7	1	0
26.27	1	15	20	3	0	22.23	0	+	+	0	0
24.25	+	2	1	1	0	20.21	0	0	0	0	0
22.23	0	+	0	0	0	18.19	0	0	0	0	0
20.21	0	0	0	0	0	16.17	0	0	0	0	0
18.19	0	0	0	0	0	14.15	0	0	0	0	0
16.17	0	0	0	0	0	12.13	0	0	0	0	0
14.15	0	0	0	0	0	10.11	0	0	0	0	0

592

639

WIND SPEED (KTS) 6						WIND SPEED (KTS) 7					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	+	+	+	0	0	32.33	0	+	0	0	0
30.31	1	2	1	+	0	30.31	0	3	2	0	0
28.29	4	14	8	+	0	28.29	0	8	11	+	0
26.27	11	30	16	2	0	26.27	2	13	42	3	0
24.25	1	5	3	+	0	24.25	0	5	10	3	0
22.23	+	+	+	+	0	22.23	0	0	+	0	0
20.21	0	+	0	0	0	20.21	0	0	0	0	0
18.19	0	0	0	0	0	18.19	0	0	0	0	0
16.17	0	0	0	0	0	16.17	0	0	0	0	0
14.15	0	0	0	0	0	14.15	0	0	0	0	0
12.13	0	0	0	0	0	12.13	0	0	0	0	0

1418

281

BLACK LINE - Percent frequency of T-H index $\geq 24^\circ\text{C}$ (75.2%) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11						WIND SPEED (KTS) 12						WIND SPEED (KTS) 13						WIND SPEED (KTS) 14						WIND SPEED (KTS) 15						WIND SPEED (KTS) 16					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	+	1	0	0	0	34.35	0	+	0	0	0	32.33	0	+	1	0	0	30.31	0	+	+	0	0	28.29	0	+	1	0	0	26.27	0	1	+	0	0
32.33	1	2	1	0	0	32.33	0	1	+	0	0	30.31	1	2	2	0	0	28.29	+	1	1	0	0	26.27	+	2	3	+	0	24.25	+	6	1	0	0
30.31	5	13	6	1	0	30.31	1	6	2	+	0	28.29	3	18	20	2	0	26.27	1	11	10	1	0	24.25	1	9	10	2	0	22.23	0	10	5	0	0
28.29	8	33	11	+	0	28.29	6	37	16	1	+	26.27	4	23	16	1	0	24.25	2	25	27	1	0	22.23	1	16	30	1	0	20.21	3	22	14	+	0
26.27	2	10	5	1	1	26.27	3	14	8	1	+	24.25	+	3	3	1	0	22.23	1	8	12	+	0	20.21	1	7	15	+	0	18.19	3	17	12	+	0
24.25	0	0	+	+	+	24.25	+	1	+	0	0	22.23	0	1	+	0	0	20.21	0	+	+	+	0	18.19	0	+	0	0	0	16.17	1	2	2	+	0
22.23	0	0	0	0	0	22.23	0	0	0	0	0	20.21	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0
20.21	0	0	0	0	0	20.21	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0
18.19	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0
16.17	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	9.9	0	0	0	0	0
14.16	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	9.9	0	0	0	0	0						
301						496						892						1350						441						278					

301

496

892

1350

441

278

WIND SPEED (KTS) 20						WIND SPEED (KTS) 21						WIND SPEED (KTS) 22						WIND SPEED (KTS) 23						WIND SPEED (KTS) 24						WIND SPEED (KTS) 25					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	0	+	0	0	0	28.29	0	1	0	0	0	28.29	+	0	0	0	0	30.31	0	0	+	0	0	28.29	+	+	0	0	0	22.23	+	+	+	+	0
32.33	+	+	0	0	0	28.27	0	11	5	1	0	28.27	+	+	+	+	0	28.28	0	0	+	0	0	28.27	+	1	1	0	0	20.21	+	2	1	+	0
30.31	+	+	+	0	0	24.26	3	17	15	1	0	24.26	1	1	+	0	0	26.27	+	+	+	+	0	24.26	1	5	3	0	0	18.19	1	10	8	3	0
28.29	2	5	2	+	0	22.23	3	22	7	2	0	22.23	3	5	2	+	0	24.26	+	1	1	+	0	22.23	3	16	14	3	+	16.17	2	18	21	6	+
26.27	3	21	15	1	+	20.21	1	6	2	2	0	20.21	7	15	9	1	0	22.23	2	7	8	1	0	20.21	3	17	16	4	+	14.15	1	7	10	2	1
24.25	5	22	15	1	0	18.19	1	0	1	1	1	18.19	5	19	20	1	0	20.21	3	13	13	2	+	18.19	2	5	5	1	+	12.13	0	2	1	1	+
22.23	1	2	2	+	0	16.17	0	0	0	0	0	16.17	1	4	5	0	0	18.19	2	14	15	3	+	16.17	0	+	+	0	0	10.11	0	0	0	0	0
20.21	+	+	1	+	0	14.15	0	0	0	0	0	14.15	0	+	3	0	0	16.17	1	4	4	2	+	14.15	0	0	0	0	0	8.9	0	0	0	0	0
18.19	0	0	+	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	14.16	+	1	+	+	+	12.13	0	0	0	0	0	6.7	0	0	0	0	0
16.17	0	+	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	12.13	0	+	0	0	0	10.11	0	0	0	0	0	4.5	0	0	0	0	0
14.15	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	2.3	0	0	0	0	0
1779						190						669						1857						635						745					

1779

190

669

1657

635

745

WIND SPEED (KTS) 29										WIND SPEED (KTS) 30										WIND SPEED (KTS) 31										WIND SPEED (KTS) 32										WIND SPEED (KTS) 33										WIND SPEED (KTS) 34									
TEMP (°C)		0-3	4-10	11-21	22-33	34	TEMP (°C)		0-3	4-10	11-21	22-33	34	TEMP (°C)		0-3	4-10	11-21	22-33	34	TEMP (°C)		0-3	4-10	11-21	22-33	34	TEMP (°C)		0-3	4-10	11-21	22-33	34	TEMP (°C)		0-3	4-10	11-21	22-33	34																		
24.26	+	+	0	0	0	0	18.19	0	+	+	0	0	0	19.19	0	0	0	0	+	0	20.21	0	1	1	0	0	20.21	0	+	0	0	0	0	16.17	0	+	+	0	0	0																			
22.23	+	+	+	1	0	0	18.17	+	1	1	+	+	1	18.17	0	0	1	+	0	0	18.19	1	3	2	1	0	18.19	+	+	1	+	0	14.16	0	1	2	1	0	0																				
20.21	1	3	4	1	+	+	14.16	+	7	8	3	1	+	14.16	0	1	1	1	+	+	16.17	1	3	7	3	0	16.17	1	3	4	1	+	12.13	+	4	13	5	+	+																				
18.19	2	10	15	6	+	+	12.13	1	9	18	14	2	+	12.13	1	4	12	3	3	+	14.16	0	14	16	2	+	14.16	2	14	14	3	1	10.11	1	5	19	12	2	+																				
16.17	2	12	17	6	+	+	10.11	+	5	12	9	1	+	10.11	1	4	17	10	2	+	12.13	0	5	16	8	2	12.13	2	16	18	6	1	8.9	+	6	15	10	1	+																				
14.16	1	5	6	2	1	+	8.9	0	+	4	3	+	+	8.9	+	6	16	7	3	+	10.11	0	3	3	3	1	10.11	1	4	5	2	1	6.7	0	1	1	2	+	+																				
12.13	0	2	1	1	+	+	6.7	0	0	+	+	0	+	6.7	0	0	2	3	1	+	8.9	0	0	1	1	0	8.9	0	+	1	0	0	4.6	0	0	0	+	0	+																				
10.11	+	+	+	+	+	0	4.6	0	0	0	0	0	0	4.6	0	0	+	+	1	0	6.7	0	0	0	0	0	6.7	0	0	0	0	0	2.3	0	0	0	0	0	0																				
8.9	0	0	+	0	0	0	2.3	0	0	0	0	0	0	2.3	0	0	0	0	0	0	4.6	0	0	0	0	0	4.6	0	0	0	0	0	0	0	0	0	0	0	0																				
6.7	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0	-2.1	0	0	0	0	0	0																				
4.6	0	0	0	0	0	0	-2.1	0	0	0	0	0	0	-2.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	-4.3	0	0	0	0	0	0																				
1401						596						534						174						998						A27																													

JANUARY

As explained in the text

On the given value:

Analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

1

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	+	0	0	0	0
32.33	0	0	+	+	0
30.31	0	2	2	+	0
28.29	+	17	34	4	0
26.27	1	15	20	3	0
24.25	+	2	1	1	0
22.23	0	+	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

592

2

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	1	1	0	0
28.29	+	9	17	1	0
26.27	1	20	33	5	0
24.25	0	3	7	1	0
22.23	0	+	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

639

3

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	+	+	0	0
28.29	0	3	6	+	0
26.27	2	19	35	3	0
24.25	2	13	13	2	0
22.23	0	1	2	0	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

526

4

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	1	1	0	0
28.29	1	4	4	1	+
26.27	6	20	21	4	0
24.25	7	21	6	1	0
22.23	+	1	+	0	0
20.21	0	+	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

764

5

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	+	+	0	0
30.31	+	+	1	0	0
28.29	1	2	2	0	0
26.27	+	12	5	0	0
24.25	4	30	9	0	0
22.23	5	23	4	0	0
20.21	1	1	+	0	0
18.19	+	0	0	+	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

859

6

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	+	+	0	0
30.31	1	2	1	+	0
28.29	4	14	8	+	0
26.27	11	30	16	2	0
24.25	1	5	3	+	0
22.23	+	+	+	+	0
20.21	0	+	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1418

7

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	0	0	0
30.31	0	3	2	0	0
28.29	0	6	11	+	0
26.27	2	13	42	3	0
24.25	0	5	10	3	0
22.23	0	0	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

281

8

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	+	0	0	0
32.33	+	+	+	0	0
30.31	+	1	1	0	0
28.29	+	4	9	+	0
26.27	1	17	30	1	+
24.25	0	14	19	+	0
22.23	0	1	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

981

9

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	+	0	0	0
28.29	+	+	+	0	0
26.27	+	4	3	0	0
24.25	1	18	22	+	0
22.23	1	24	26	+	0
20.21	0	+	1	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1763

10

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	+	0	0	0
28.29	+	2	+	0	0
26.27	2	15	3	0	0
24.25	4	36	7	+	0
22.23	3	23	3	0	0
20.21	+	1	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

2189

15

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	+	1	0	0
26.27	+	2	3	+	0
24.25	1	9	10	2	0
22.23	1	16	30	1	0
20.21	1	7	15	+	0
18.19	0	+	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

441

16

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	1	+	0	0
26.27	+	6	1	0	0
24.25	0	10	5	0	0
22.23	3	22	14	+	0
20.21	3	17	12	+	0
18.19	1	2	2	+	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

278

17

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	+	+	0	0
28.29	+	4	2	+	0
26.27	3	10	14	2	1
24.25	2	15	21	6	1
22.23	1	4	8	2	1
20.21	+	1	+	1	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

517

18

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	0	0	0
30.31	0	0	+	0	0
28.29	1	2	3	+	+
26.27	2	13	12	1	+
24.25	3	14	24	3	0
22.23	+	5	11	3	0
20.21	0	+	1	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

637

19

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	+	0	0	0
28.29	0	1	+	0	0
26.27	+	3	4	+	0
24.25	1	11	7	1	0
22.23	3	16	17	3	+
20.21	2	10	14	3	+
18.19	+	3	3	+	+
16.17	0	+	0	0	+
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1049

24

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	+	+	0	0	0
26.27	+	1	1	0	0
24.25	1	5	3	0	0
22.23	3	16	14	3	+
20.21	3	17	16	4	+
18.19	2	5	5	1	0
16.17	0	+	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

635

25

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	+	+	+	+	0
20.21	+	2	1	+	0
18.19	1	10	8	3	0
16.17	2	18	21	6	+
14.15	1	7	10	2	1
12.13	0	2	1	1	+
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

745

26

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	+	0	0	0	0
26.27	+	+	1	0	0
24.25	+	1	1	0	0
22.23	1	5	1	+	0
20.21	2	11	11	1	+
18.19	3	17	16	2	1
16.17	1	11	9	1	+
14.15	0	1	1	+	+
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

647

27

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	0	0	0	0
28.29	+	+	0	0	0
26.27	1	1	+	0	0
24.25	4	3	2	+	0
22.23	6	12	7	1	0
20.21	5	20	16	2	+
18.19	3	9	8	1	0
16.17	+	1	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1132

28

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	0	+	+	0	0
22.23	1	1	2	0	0
20.21	4	8	2	1	0
18.19	2	10	14	8	1
16.17	3	9	15	10	1
14.15	1	1	1	3	1
12.13	1	1	1	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0

301

33

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
20.21	0	+	0	0	0
18.19	+	+	1	+	0
16.17	1	3	4	1	+
14.15	2	14	14	3	1
12.13	2	15	18	6	1
10.11	1	1	5	2	1
8.9	0	+	1	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

999

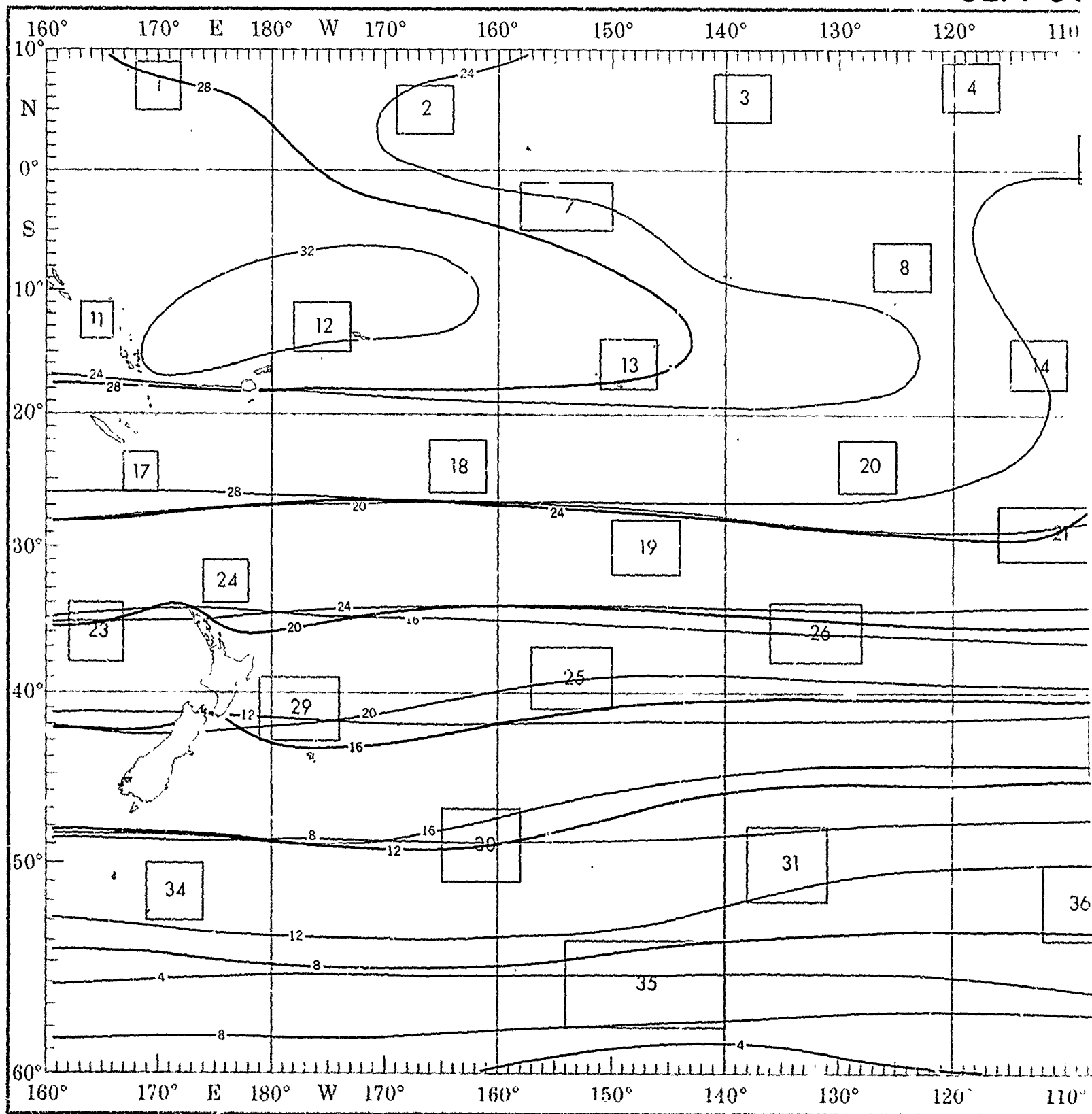
34

WIND SPEED (KTS)

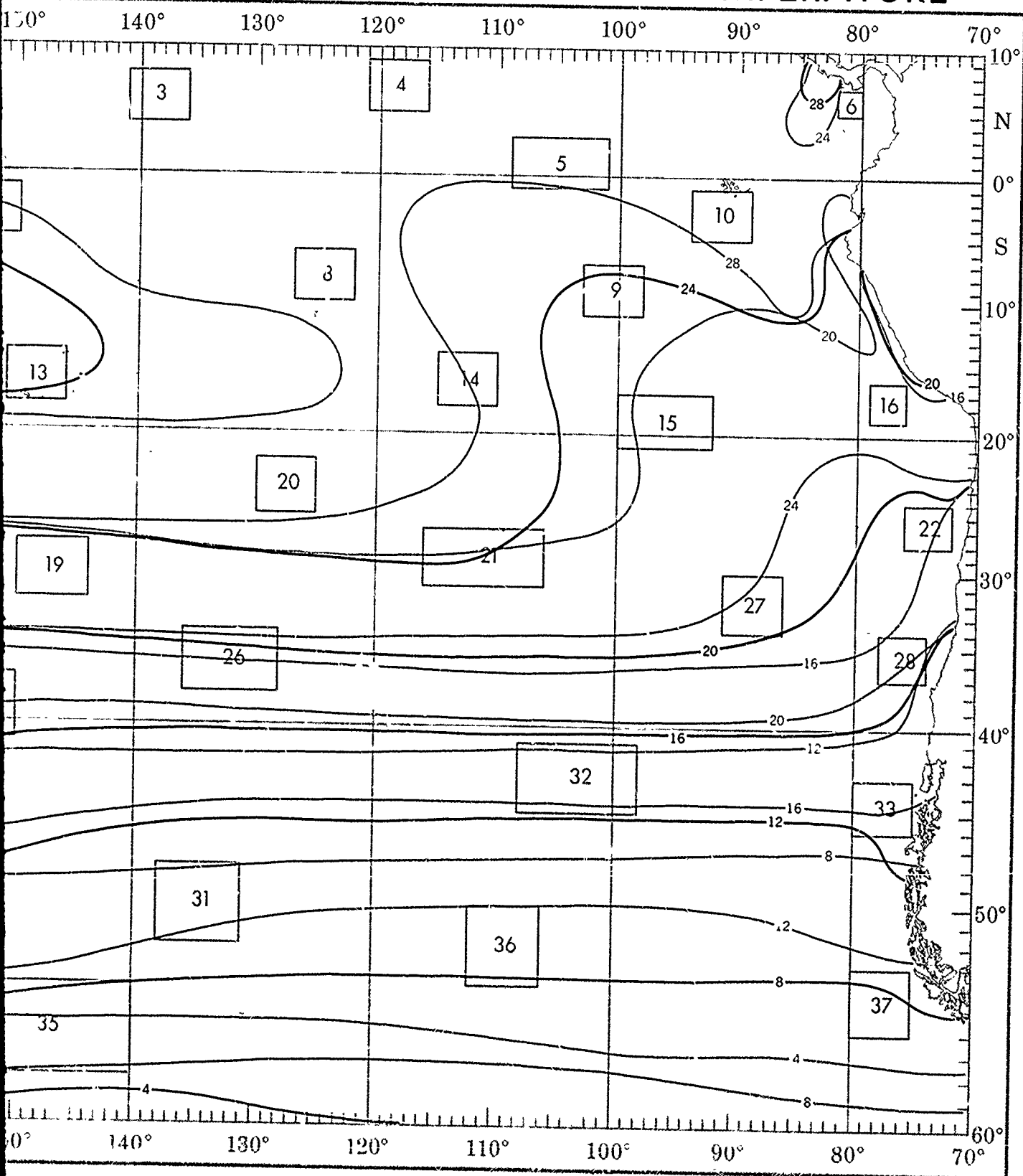
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
16.17	0	+	+	0	0
14.15	0	1	2	1	0
12.13	+	4	13	5	+
10.11	1	5	19	12	2
8.9	+	6	15	10	1
6.7	0	1	1	2	+
4.5	0	0	0	+	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0			

JANUARY

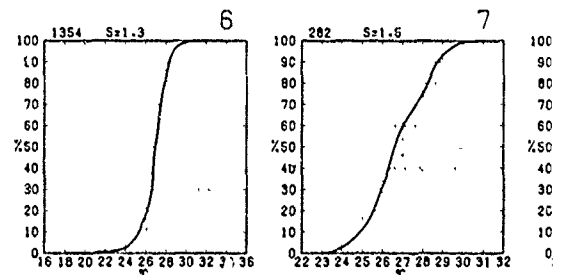
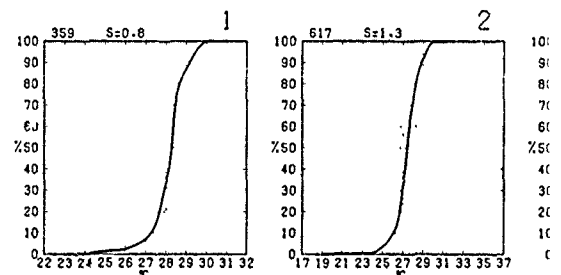
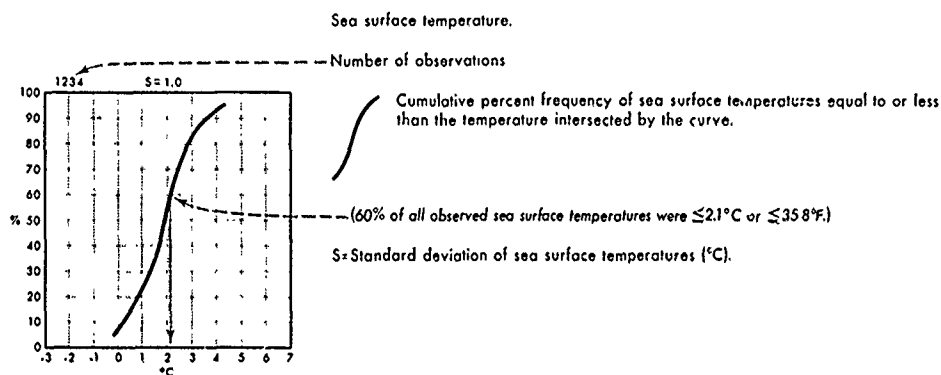
SEA SL



SEA SURFACE TEMPERATURE



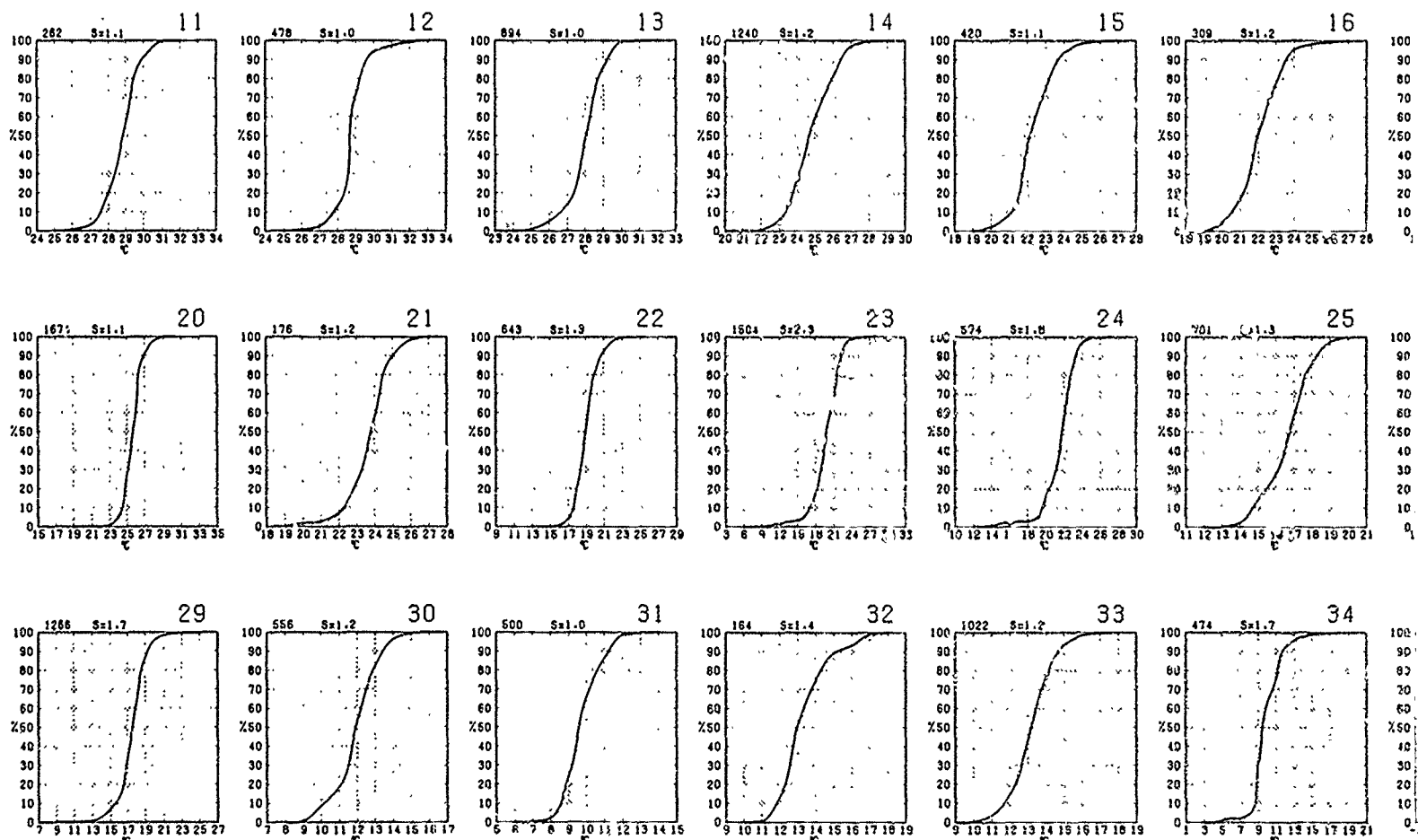
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

TEMPERATURE

JANUARY

temperatures equal to or less
ve

1°C or ≤358°F)

(C)

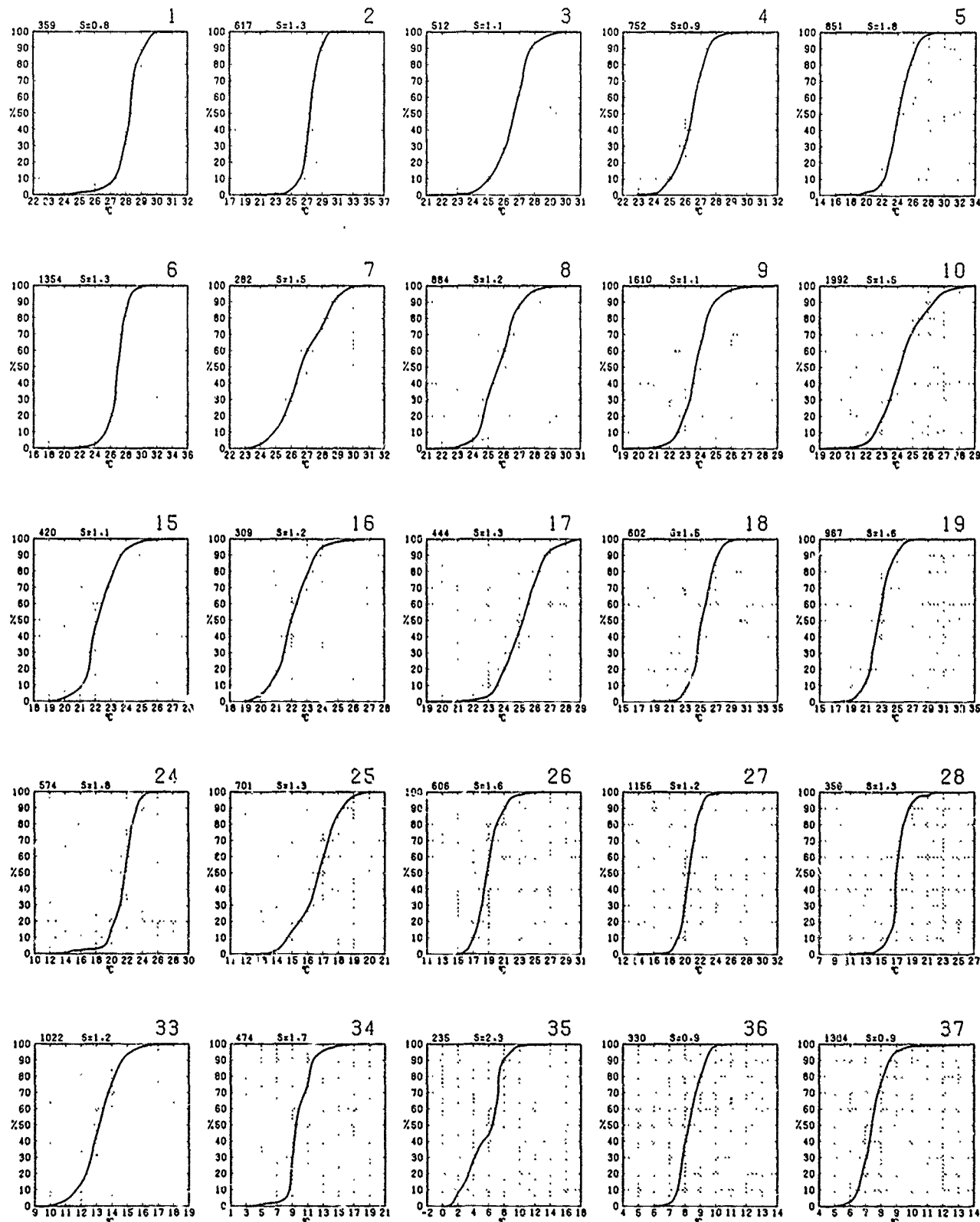
al to or less than the given

reater than the given value)

3

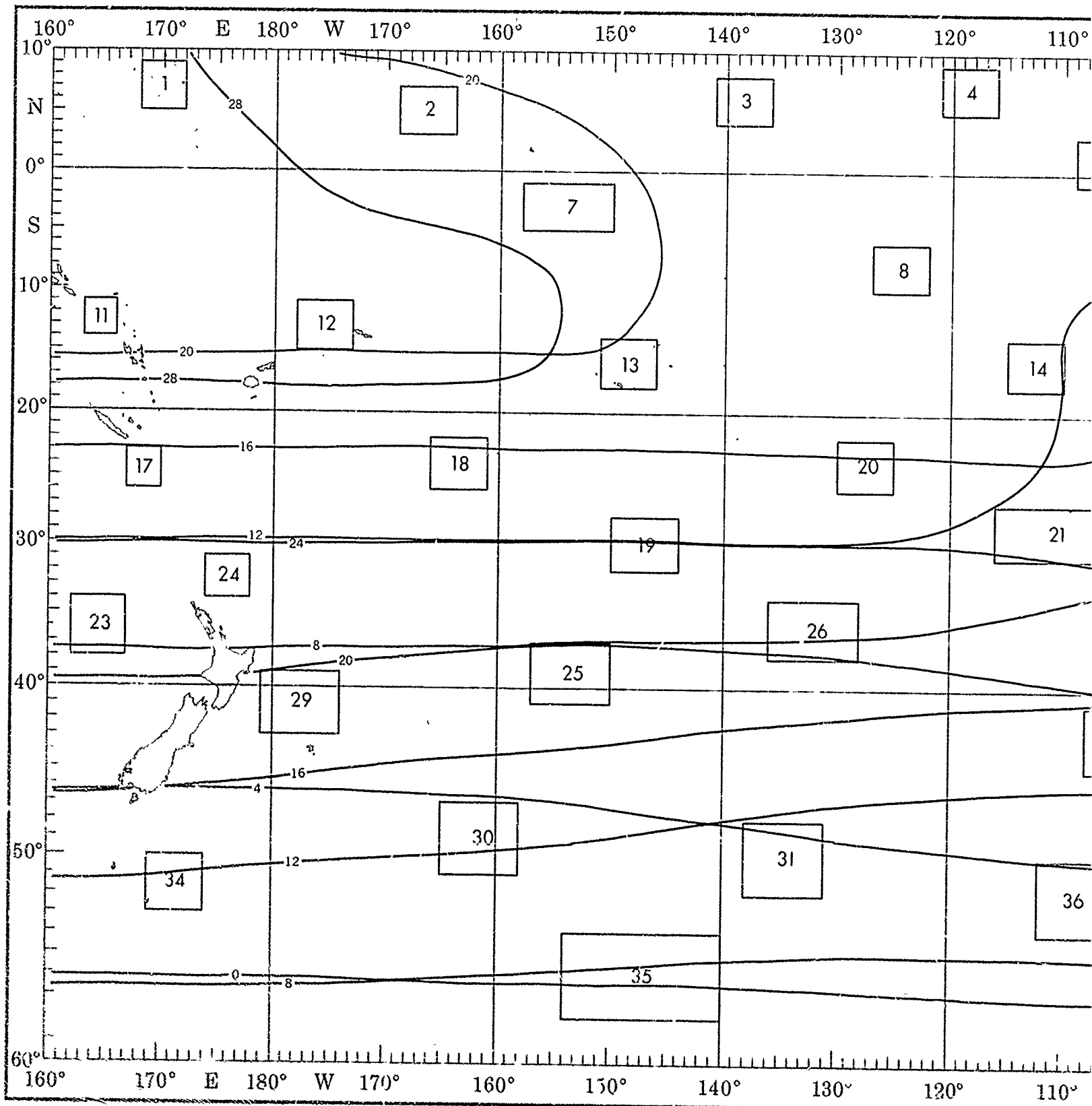
2

1

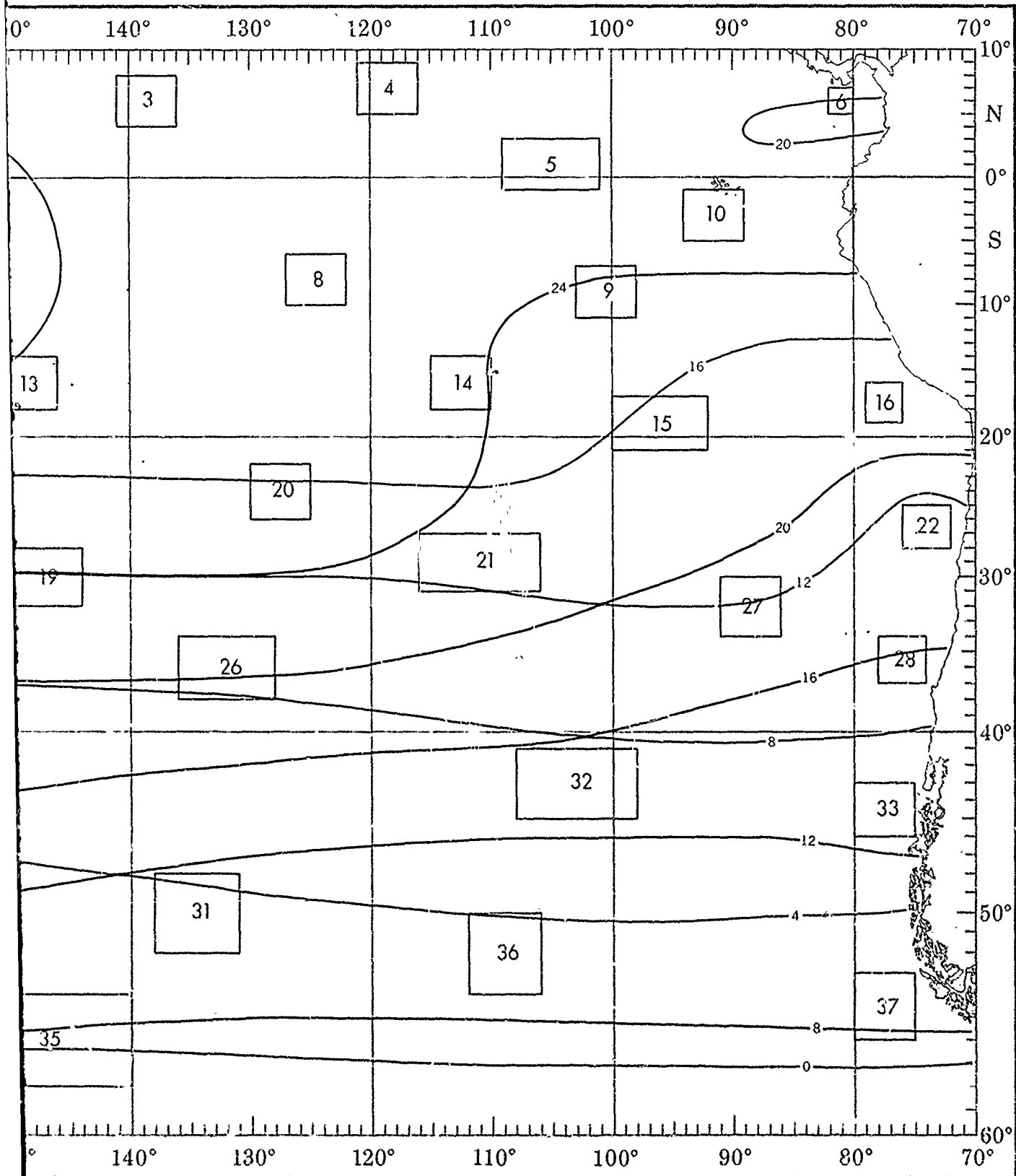


The objective compilation of available data for specified areas without regard to suspected biases.
 Analysis (opposite page) are based on all available data subjectively adjusted where bias was evident.

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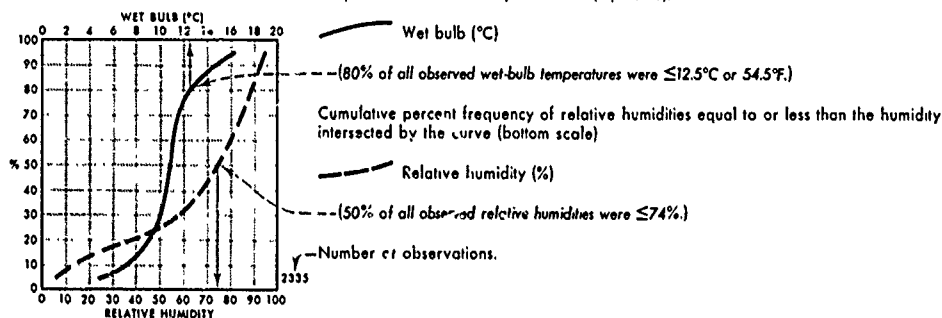
HUMIDITY



WET BULB AND RELATIVE HUMIDITY

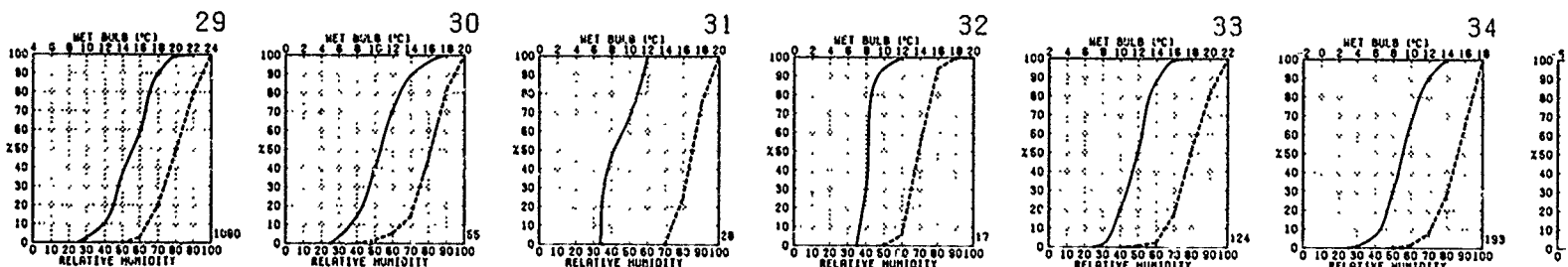
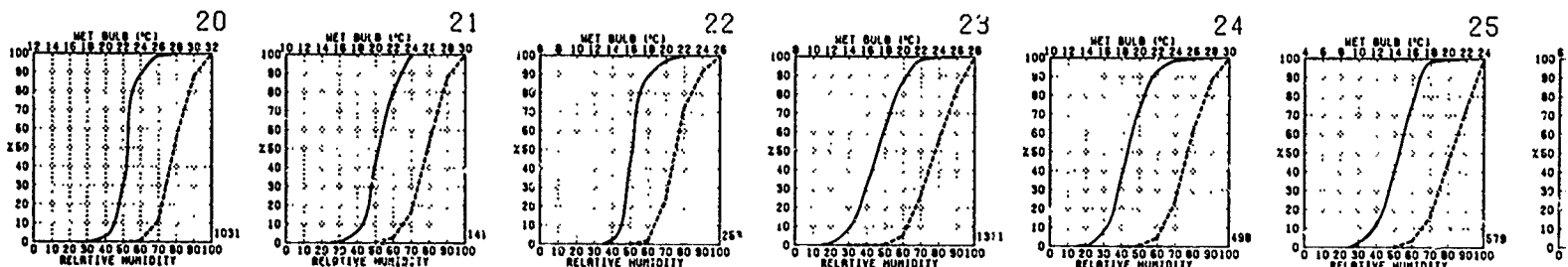
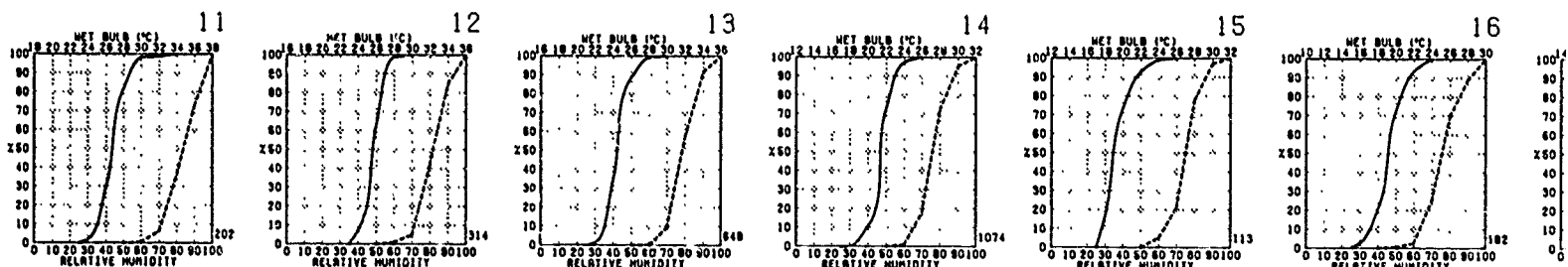
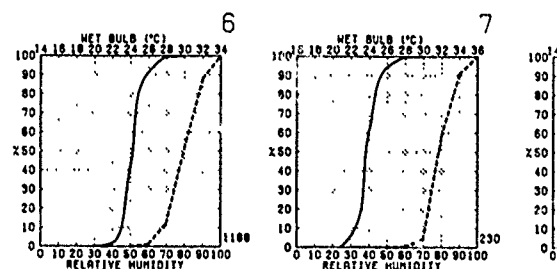
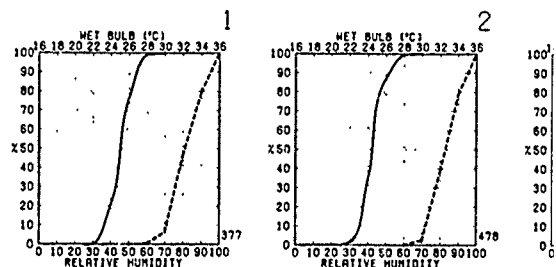
Wet bulb - Relative humidity

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).



BLUE LINE - Minimum (1%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to :
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where t

ATIVE HUMIDITY

JANUARY

equal to or less than the

or 54.5°F.)

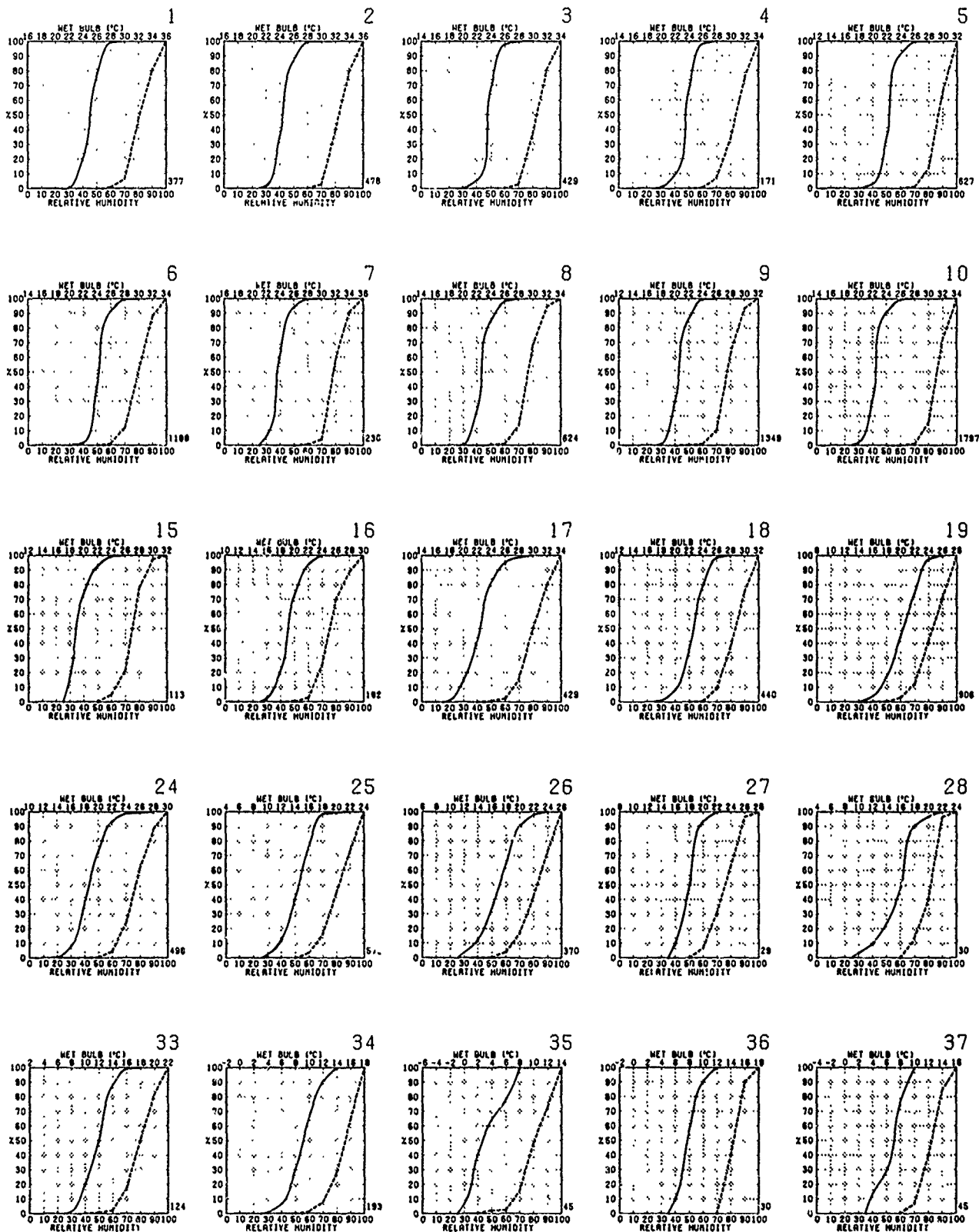
al to or less than the humidity

l to or less than the given

water than the given value)

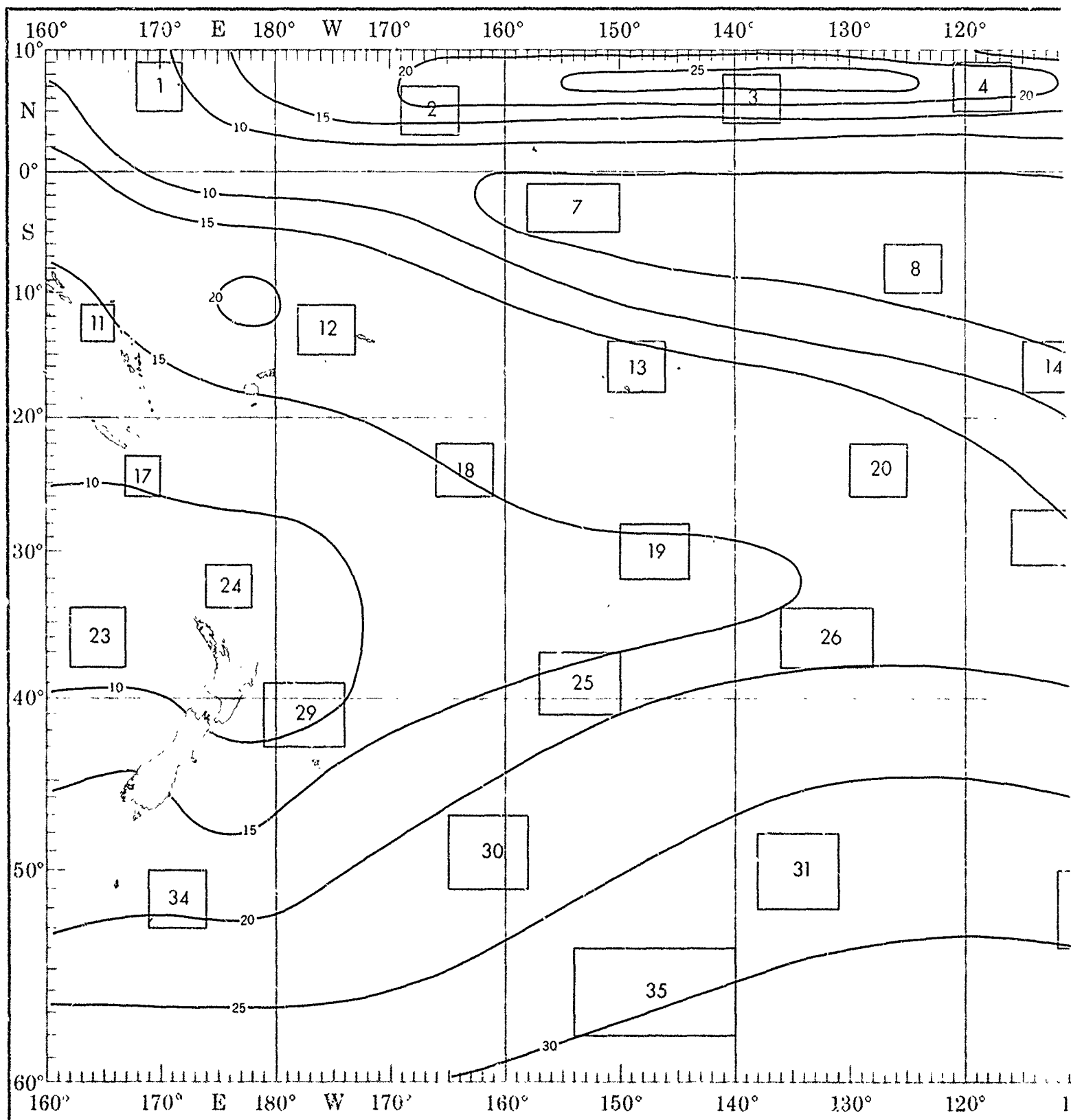
3

2

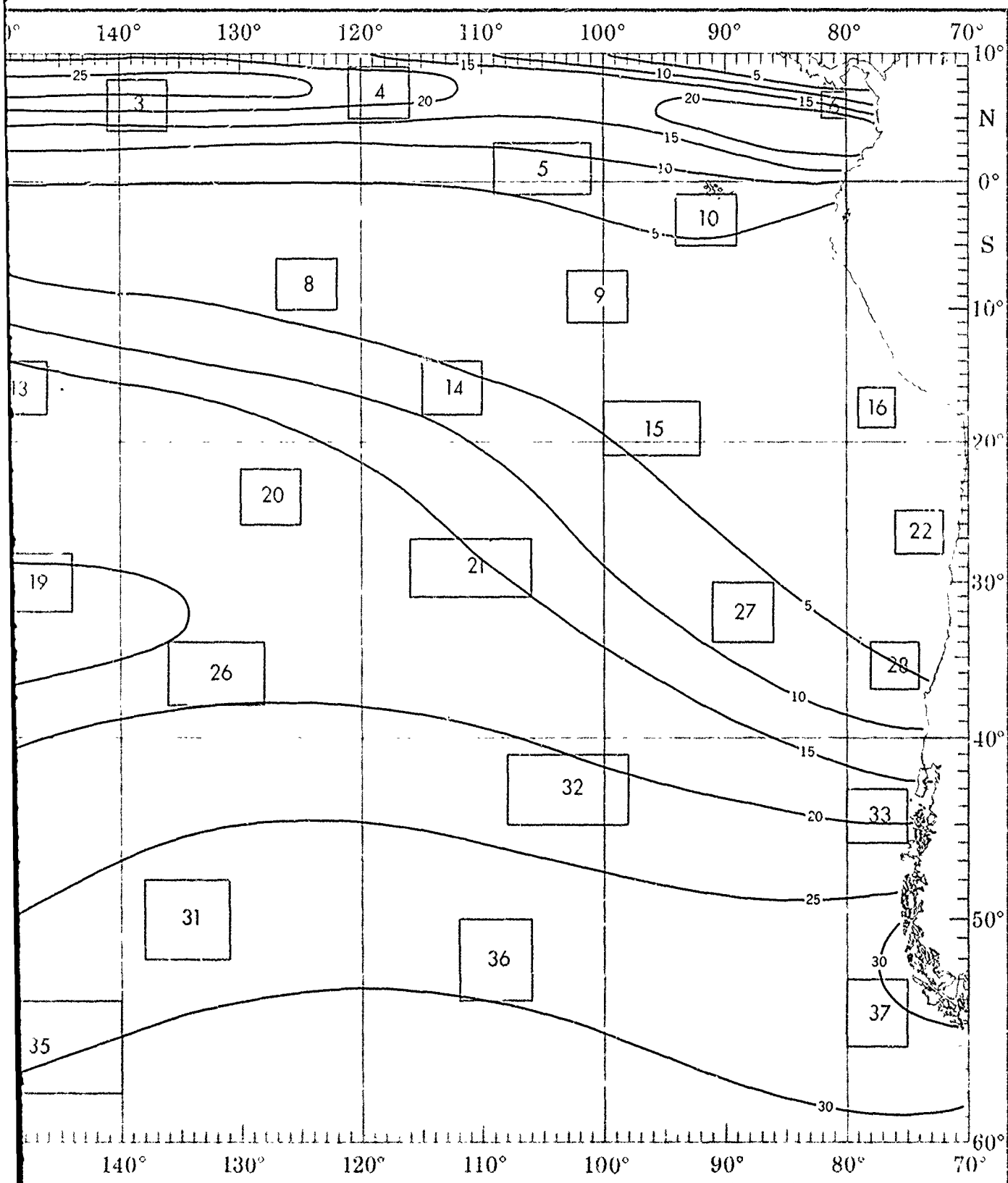


the objective compilation. of available data for specified areas without regard to suspected biases.
ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

JANUARY



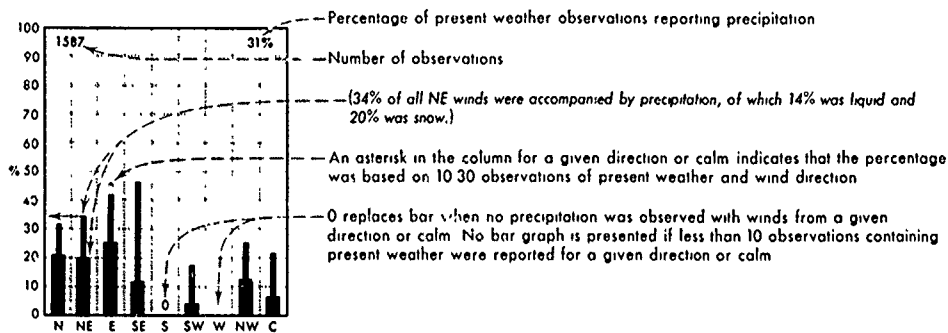
PRECIPITATION



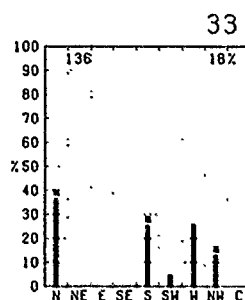
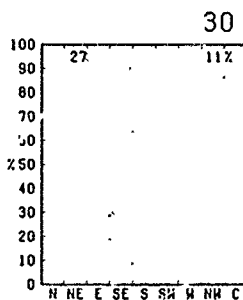
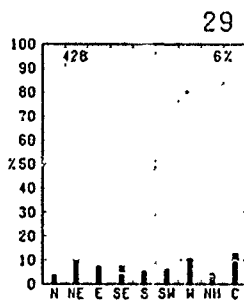
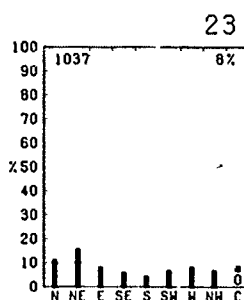
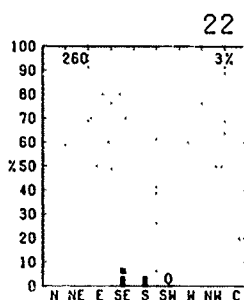
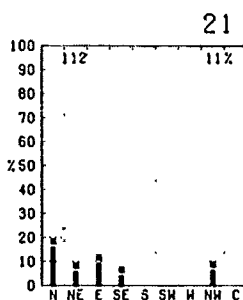
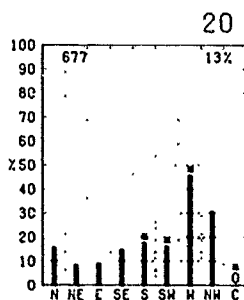
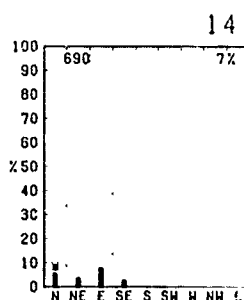
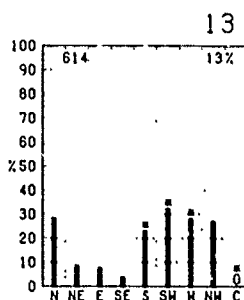
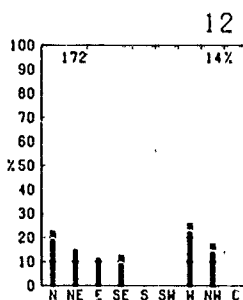
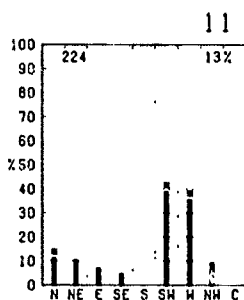
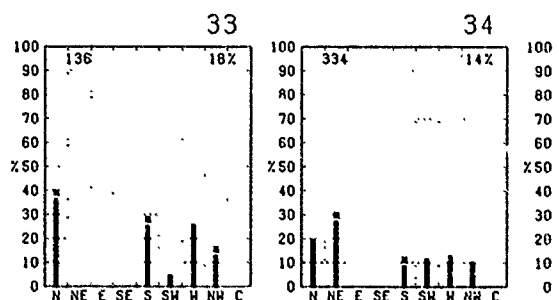
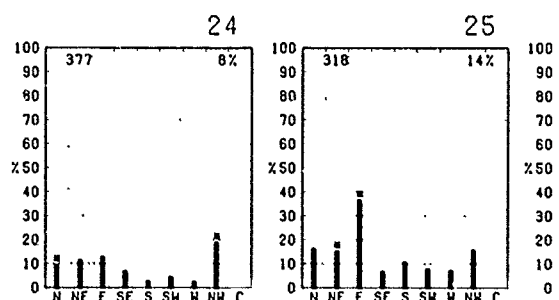
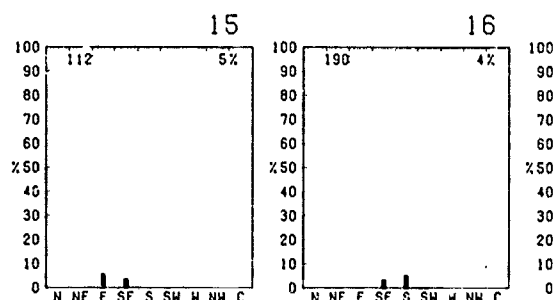
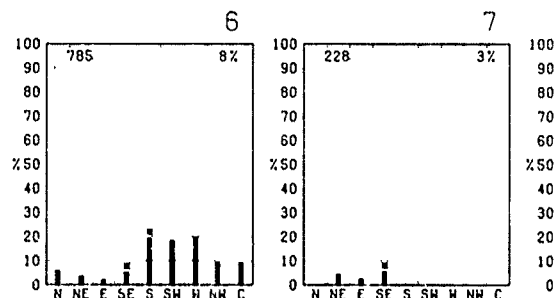
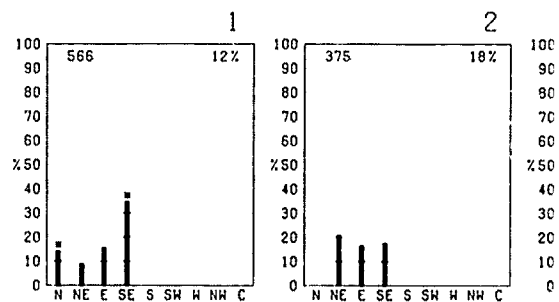
PRECIPITATION

% Pcpn % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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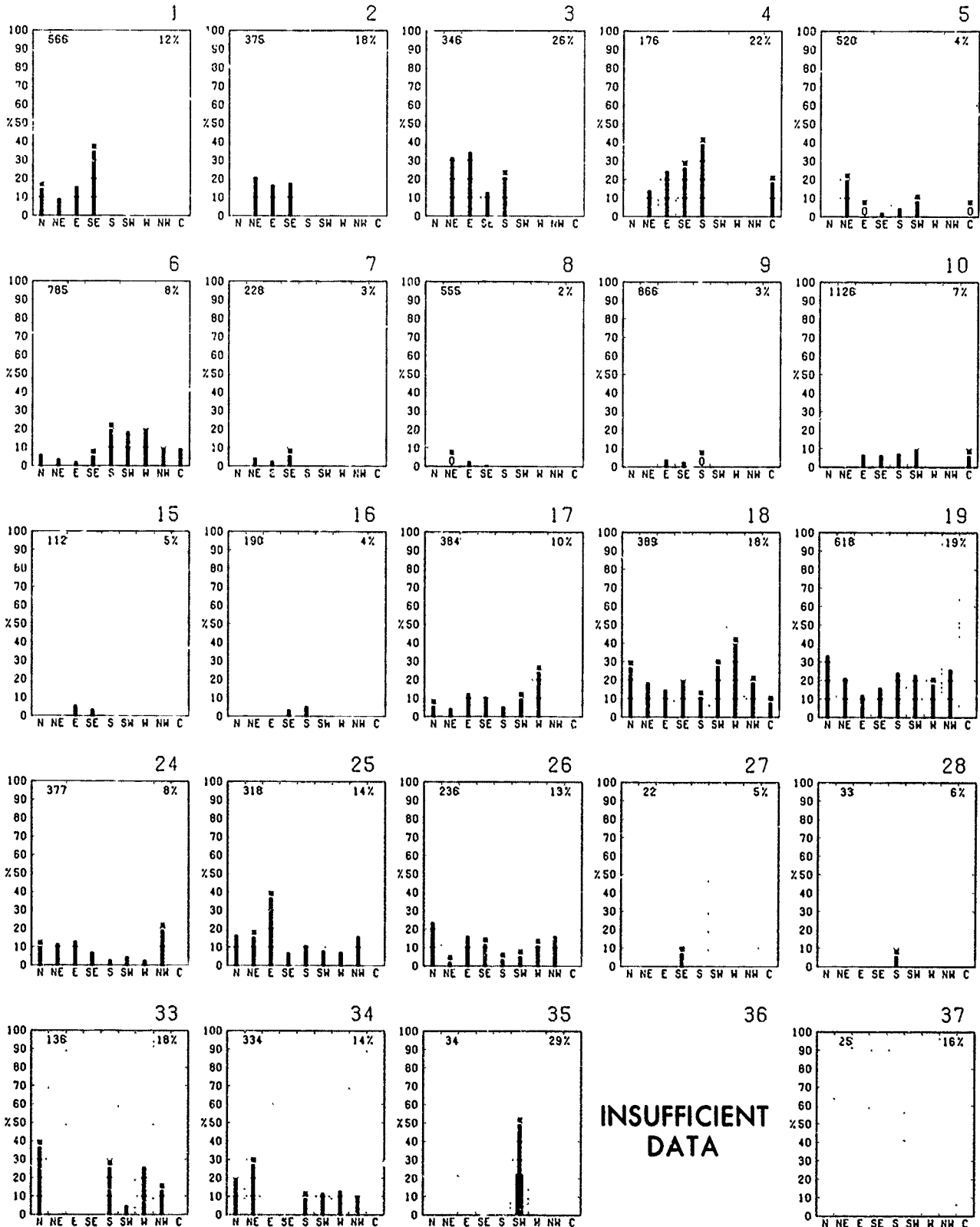
calm that were
izing rain and freezing

itation

ch 14% was liquid and

ates that the percentage
nd direction

ds from a given
bservations containing

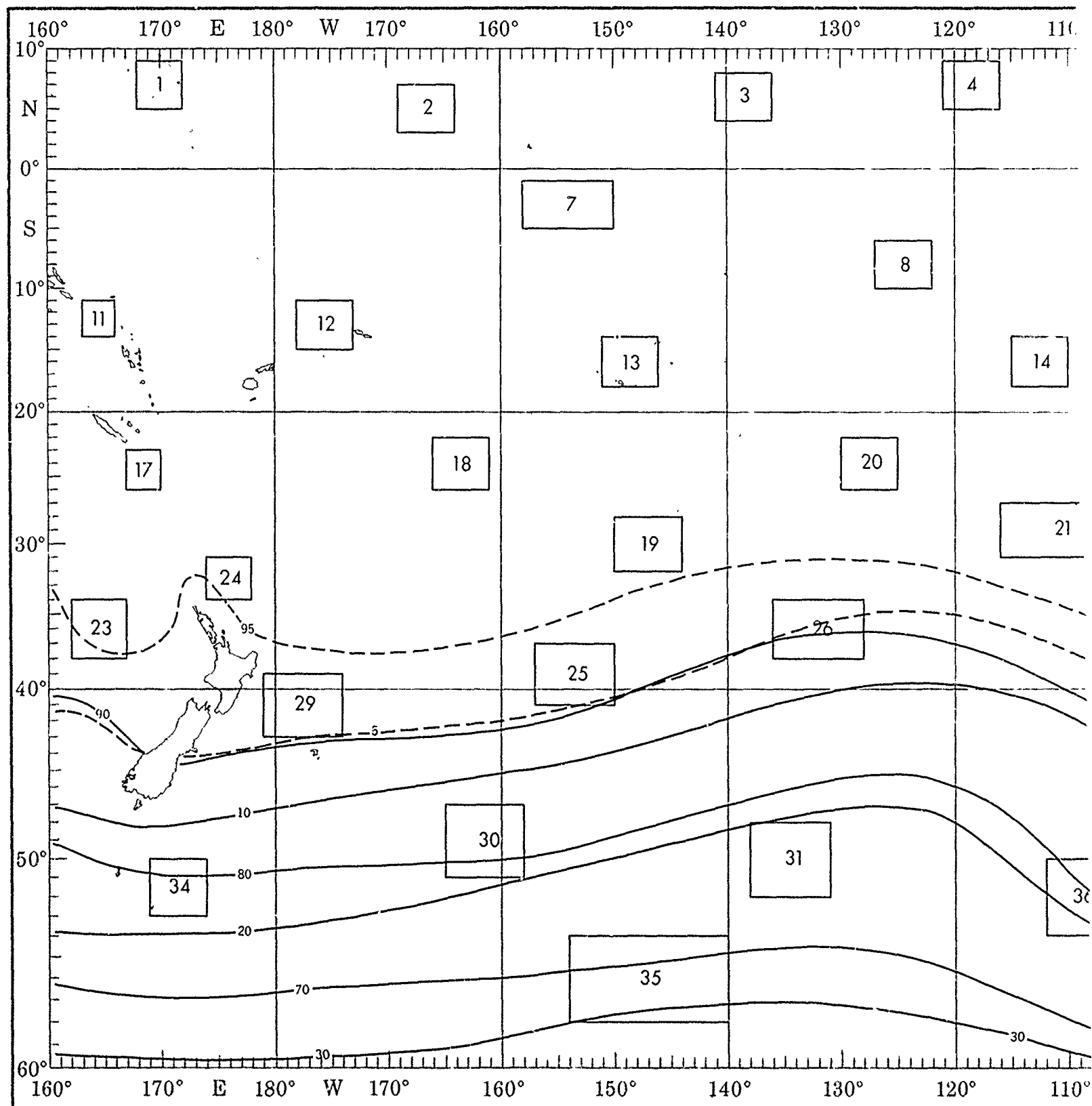


INSUFFICIENT
DATA

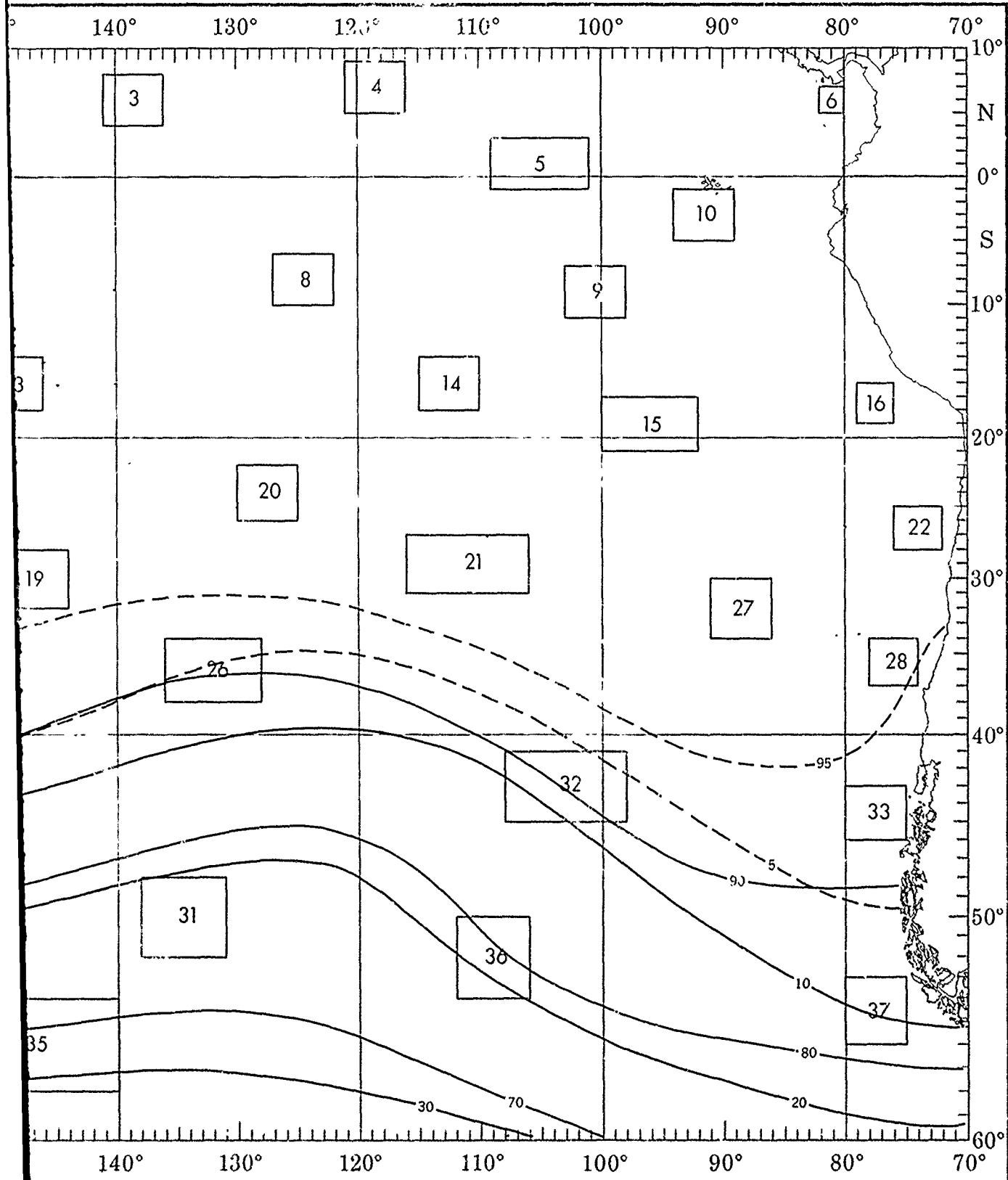
INSUFFICIENT
DATA

objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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VISIBILITY

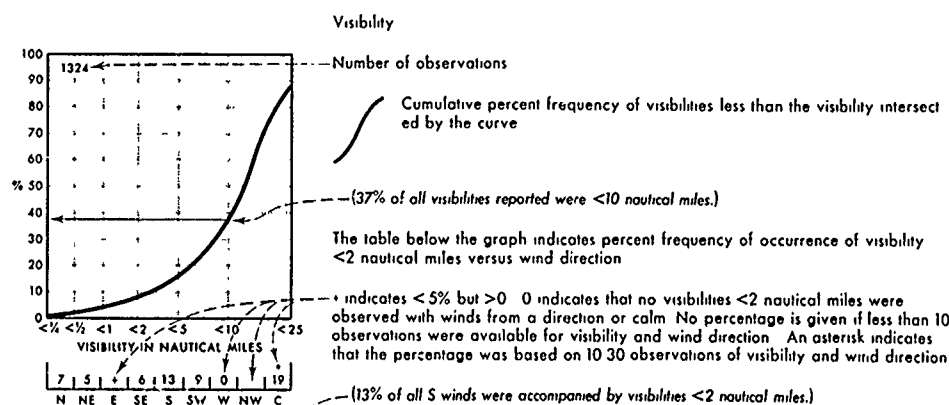


1

1

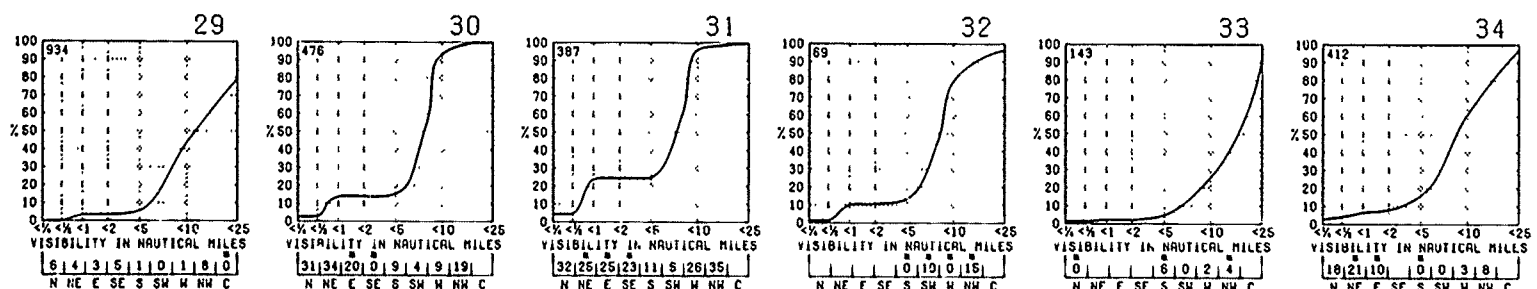
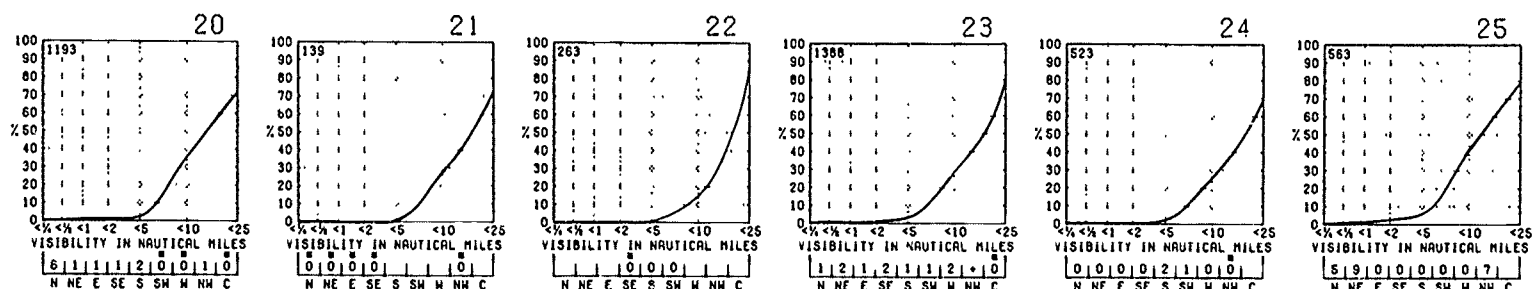
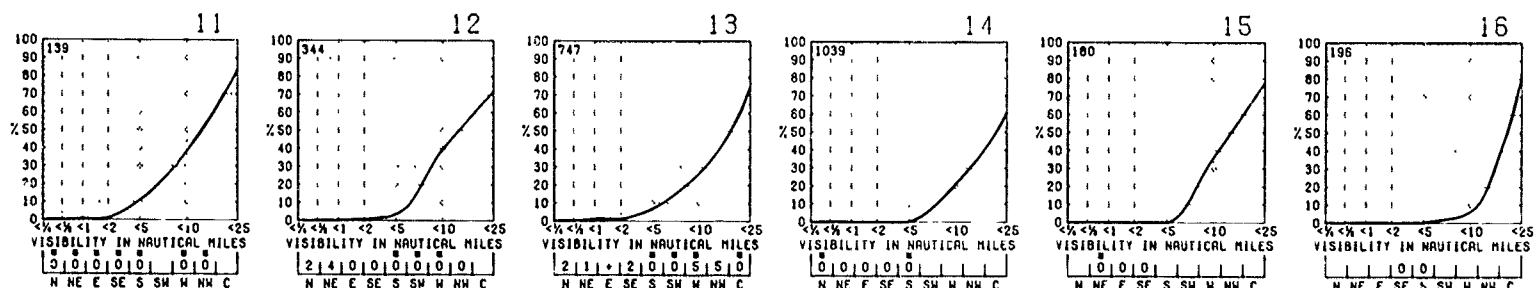
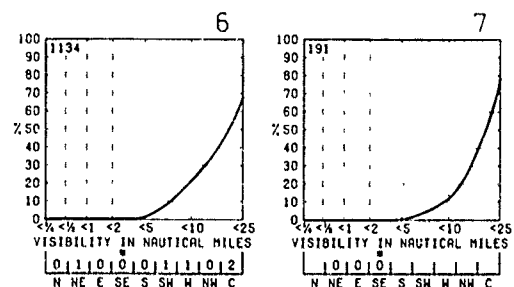
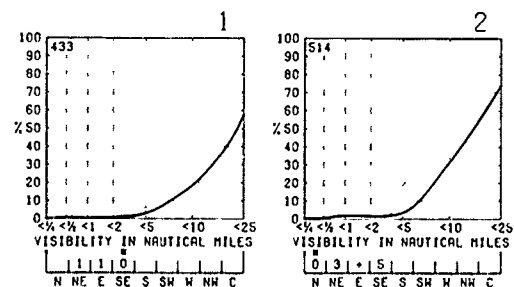
2

VISIBILITY



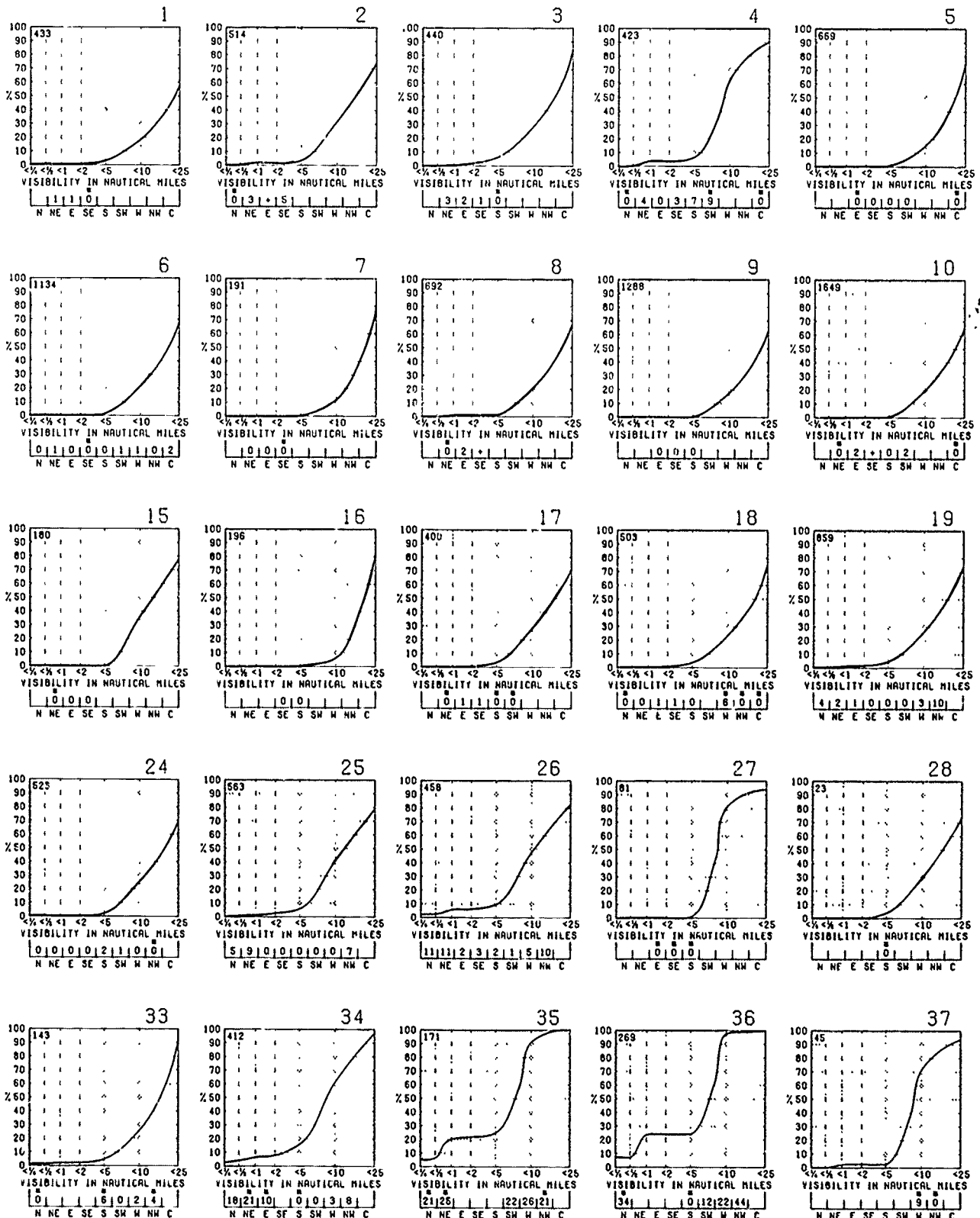
BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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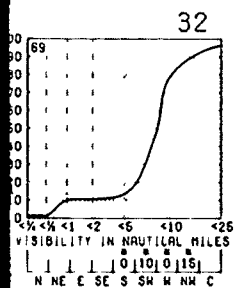
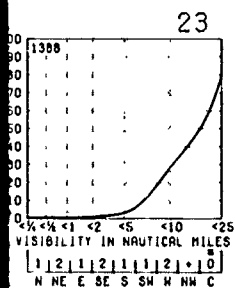
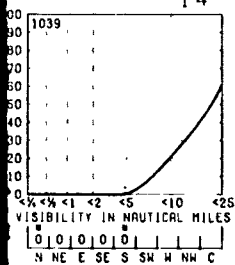


the visibility intersect.

ifference of visibility

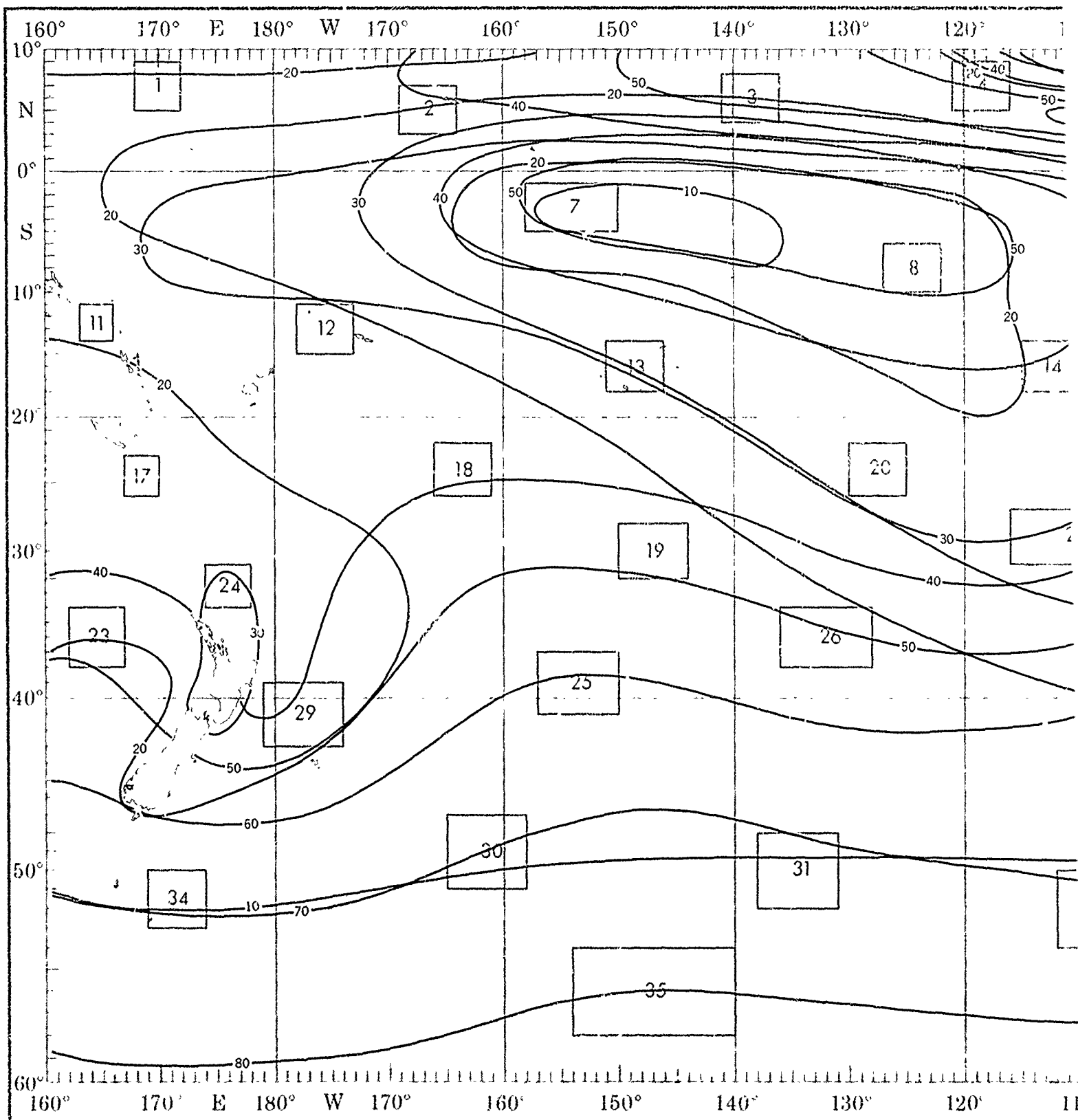
ical miles were
is given if less than 10
An asterisk indicates
y and wind direction

es)

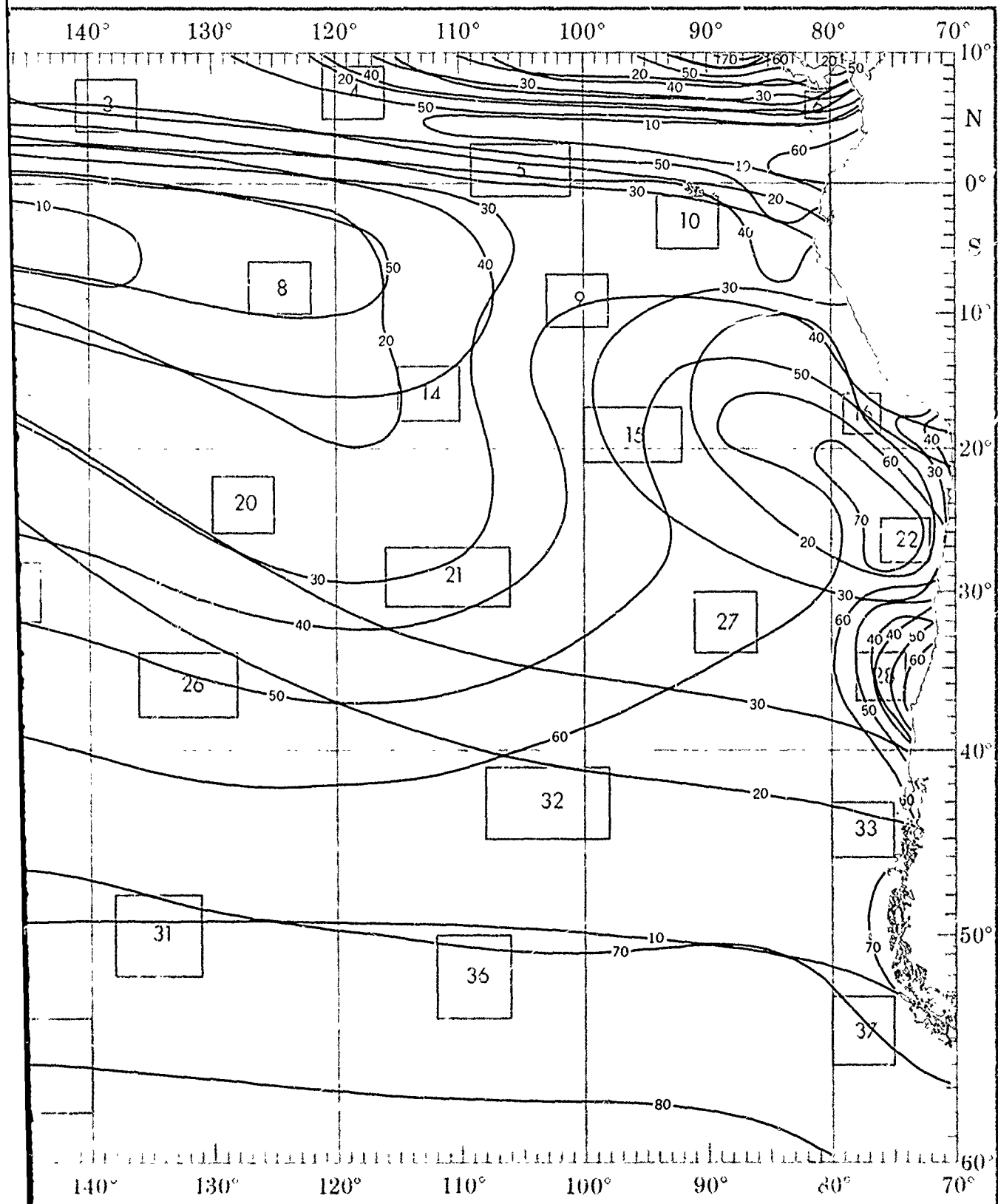


objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

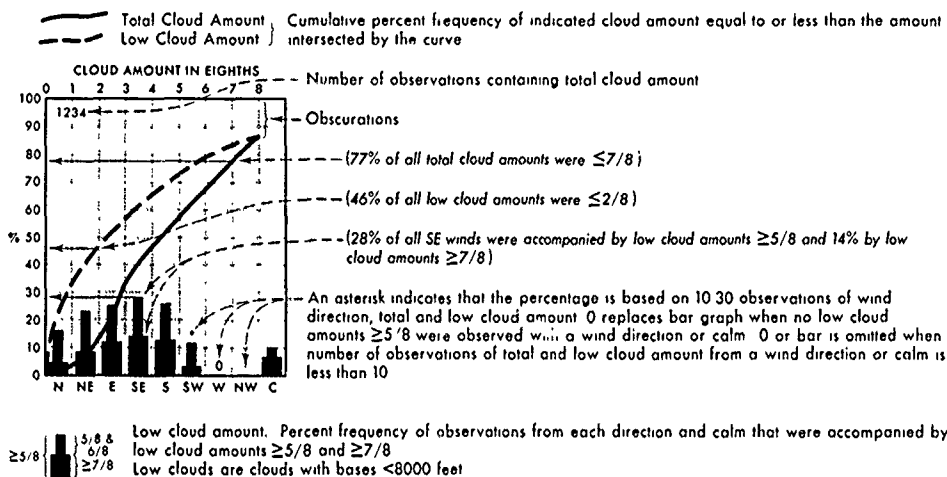
JANUARY



CLOUD COVER

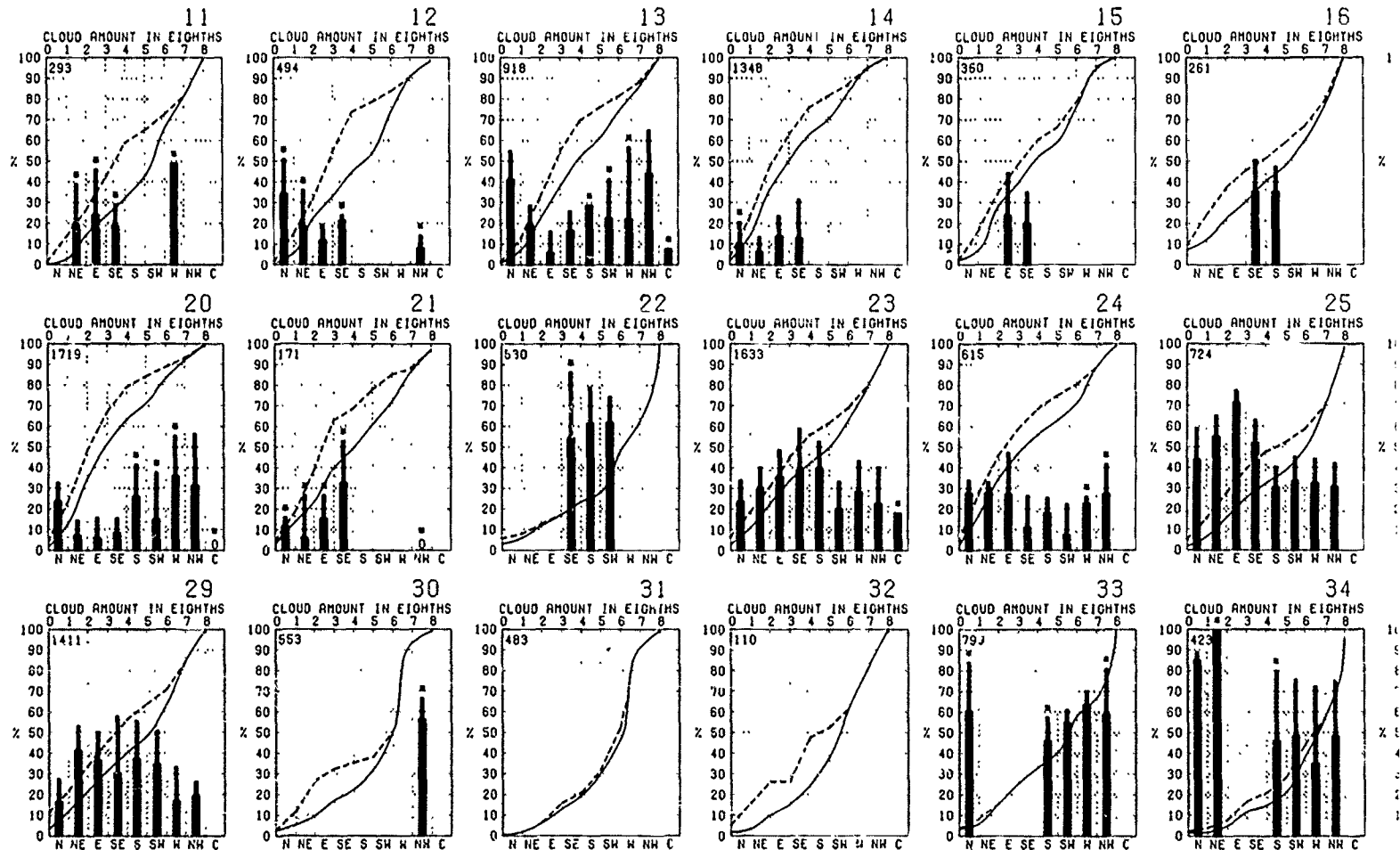


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

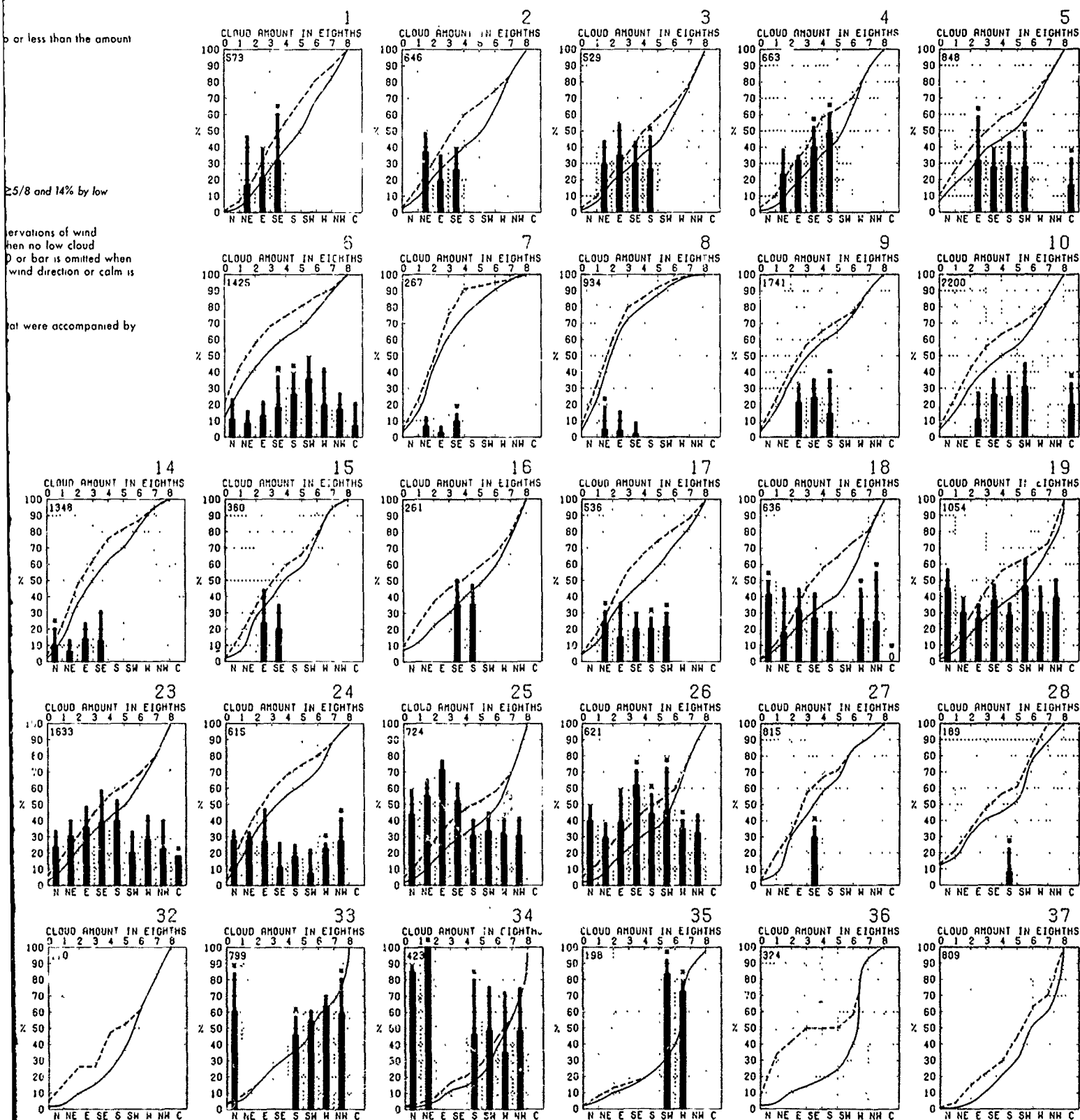
JANUARY

or less than the amount

5/8 and 14% by low

ervations of wind
hen no low cloud
D or bar is omitted when
wind direction or calm is

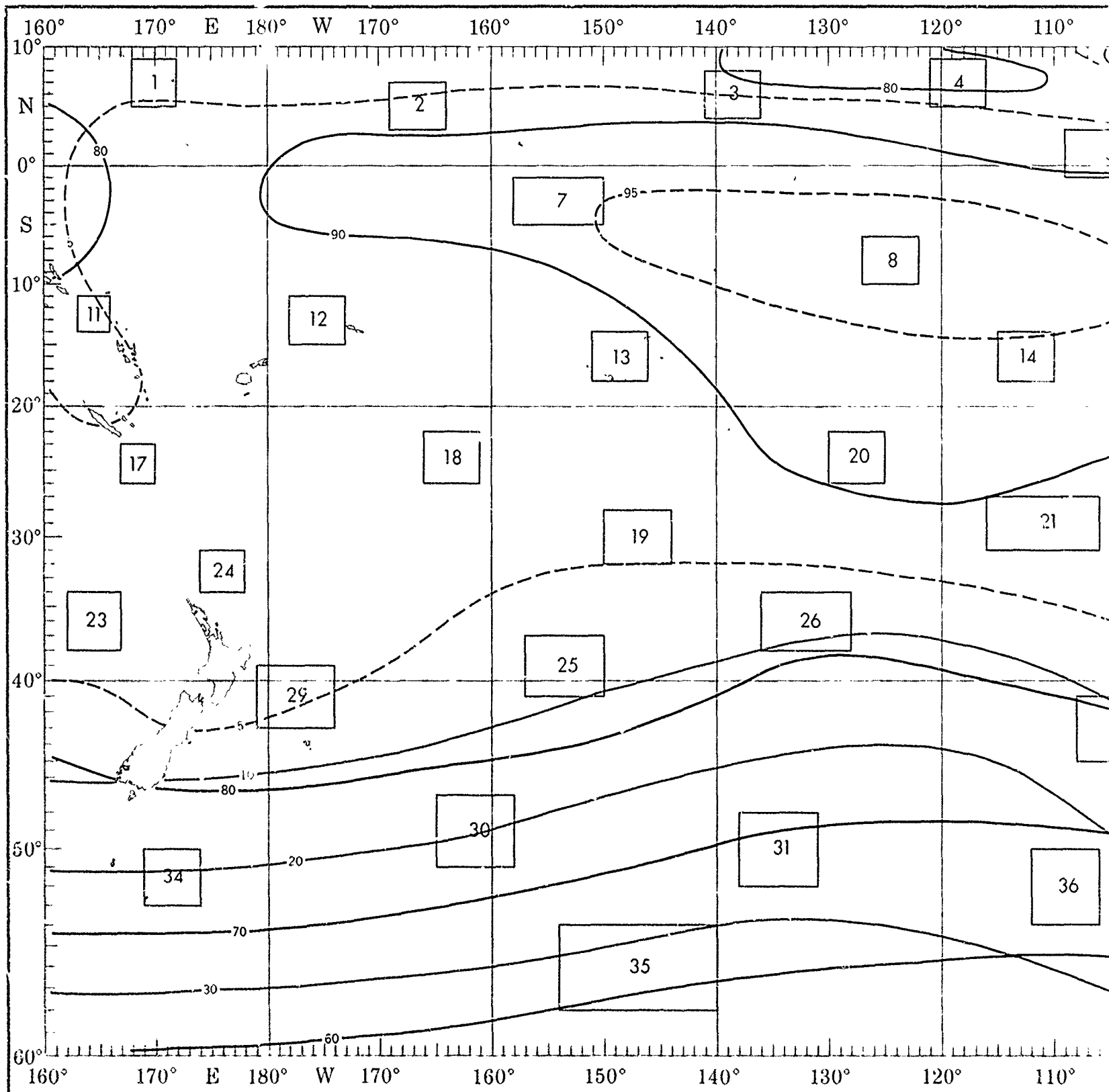
at were accompanied by



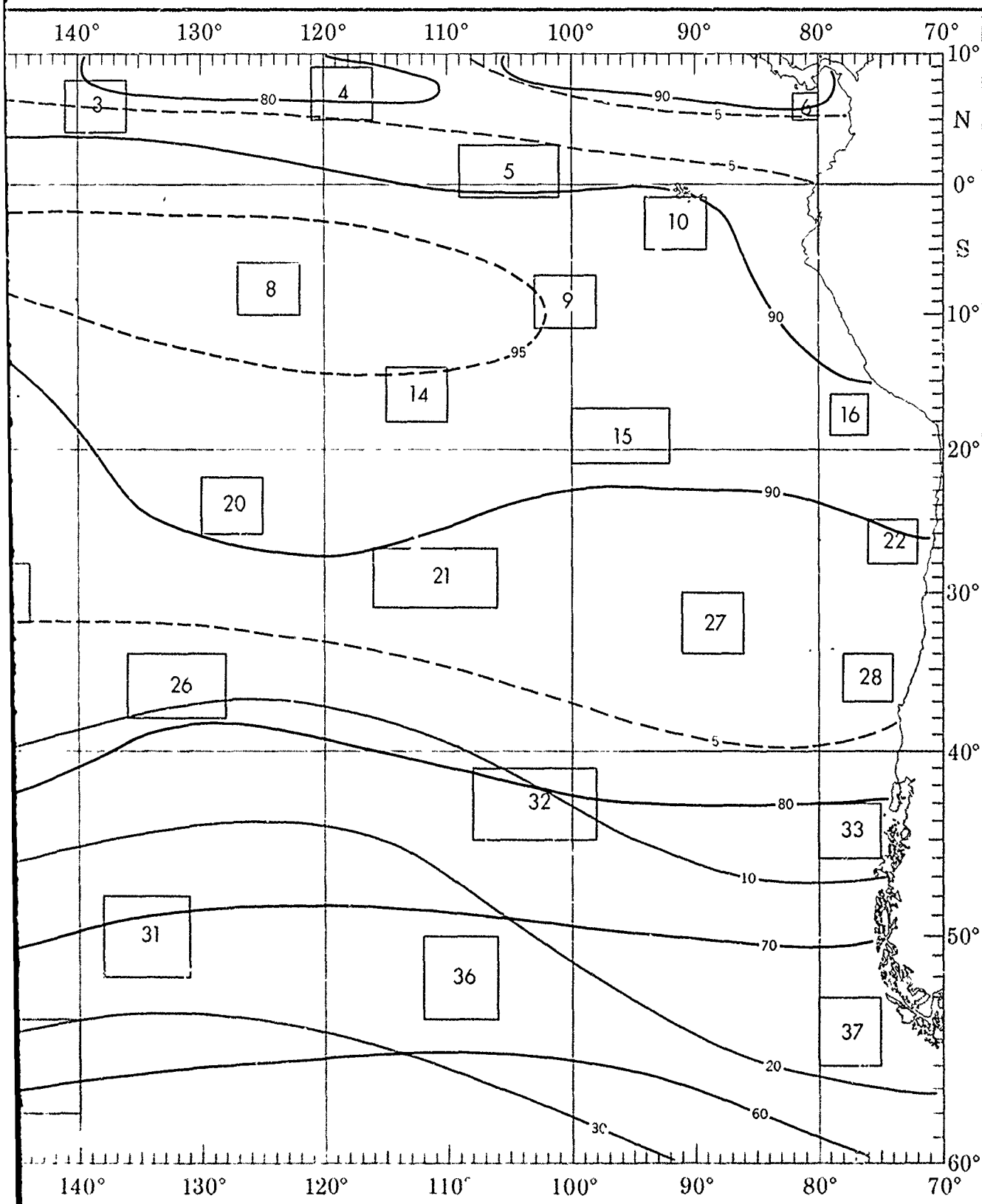
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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CEIL



CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles)

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

Obscurements are included under ceiling "0 < 15".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

+ indicates < 5% but > 0

Number of observations

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	1364
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	4
20+35	0	0	0	0	0	2
10+20	0	0	0	0	0	1
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

334

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	747
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	2
10+20	0	0	0	0	0	12
6+10	0	0	0	0	0	9
3+6	0	0	0	0	0	4
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

209

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	259
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	5
10+20	0	0	0	0	1	14
6+10	0	0	0	0	3	8
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

313

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	73
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	2
20+35	0	0	0	0	0	3
10+20	0	0	0	0	2	8
6+10	0	0	0	0	1	3
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

816

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	8	94
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	1
10+20	0	0	0	0	1	5
6+10	0	0	0	0	0	1
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

155

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	54
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	1
10+20	0	0	0	0	1	6
6+10	0	0	0	0	10	6
3+6	0	0	0	0	1	3
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	1

69

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	73
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	3
10+20	0	0	0	0	1	6
6+10	0	0	0	0	3	7
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

115

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	64
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	0
20+35	0	0	0	0	2	3
10+20	0	0	0	0	2	4
6+10	0	0	0	0	1	2
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

530

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	75
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

763

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	60
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	3
10+20	0	0	0	0	1	21
6+10	0	0	0	0	0	11
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	1

107

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	251
50+80	0	0	0	0	0	3
35+50	0	0	0	0	1	0
20+35	0	0	0	0	0	1
10+20	0	0	0	0	2	15
6+10	0	0	0	0	1	8
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

172

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	76
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	3
10+20	0	0	0	0	1	5
6+10	0	0	0	0	2	3
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

776

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	5	64
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	1
10+20	0	0	0	0	0	4
6+10	0	0	0	0	1	9
3+6	0	0	0	0	1	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

106

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	20
50+80	0	0	0	0	0	3
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	16
10+20	0	0	0	0	3	33
6+10	0	0	0	0	1	8
3+6	0	0	0	0	0	2
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

230

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	54
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	2
20+35	0	0	0	0	0	2
10+20	0	0	0	0	1	16
6+10	0	0	0	0	1	6
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

1010

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	268
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	1
20+35	0	0	0	0	1	3
10+20	0	0	0	0	1	12
6+10	0	0	0	0	1	5
3+6	0	0	0	0	1	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

351

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	50
50+80	0	0	0	0	0	2
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	1
10+20	0	0	0	0	3	16
6+10	0	0	0	0	1	5
3+6	0	0	0	0	1	2
1.5+3	0	0	0	0	0	0
0<1.5	1	0	0	1	0	0

JANUARY

ceilings (hundreds of feet)

(h) when low cloud amount

urrences of $N_h < 5/8$

usly with visibility ≥ 5 but < 10

visibility ≥ 5 nautical miles

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

1

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	+	1	7	47
	50+80	0	0	0	+	0	0
	35+50	0	0	0	+	0	1
	20+35	0	0	0	0	2	4
	10+20	0	0	0	+	6	12
	6+10	0	0	0	+	1	9
	3+6	0	0	0	0	1	4
	1.5+3	0	0	0	0	0	0
	0+1.5	+	0	0	+	0	0

209

2

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	1	58
	50+80	0	0	0	0	0	0
	35+50	0	0	0	0	0	1
	20+35	0	0	0	0	1	5
	10+20	0	+	0	1	3	14
	6+10	0	1	+	+	3	8
	3+6	+	1	0	1	0	+
	1.5+3	+	0	0	0	0	0
	0+1.5	0	0	0	0	0	0

313

3

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	4	46
	50+80	0	0	0	0	0	1
	35+50	0	0	0	0	0	1
	20+35	0	0	0	0	1	6
	10+20	0	0	0	2	3	14
	6+10	0	1	+	2	6	9
	3+6	0	0	+	+	0	2
	1.5+3	0	0	0	0	+	+
	0+1.5	0	+	0	+	+	0

301

4

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	1	4	55
	50+80	0	0	0	0	0	0
	35+50	0	0	0	0	0	0
	20+35	0	0	0	1	0	3
	10+20	0	0	0	1	2	13
	6+10	0	1	0	2	6	12
	3+6	0	0	0	0	1	0
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	1	0

162

5

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	+	2	57
	50+80	0	0	0	0	0	1
	35+50	0	0	0	0	0	+
	20+35	0	0	0	0	0	1
	10+20	0	0	0	0	1	18
	6+10	0	0	0	0	2	5
	3+6	0	0	0	+	+	1
	1.5+3	0	0	0	0	0	0
	0+1.5	+	0	0	+	+	+

503

6

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	+	2	73
	50+80	0	0	0	0	0	1
	35+50	0	0	0	0	+	2
	20+35	0	0	0	+	+	3
	10+20	0	0	+	+	2	8
	6+10	0	0	0	+	1	3
	3+6	+	0	0	+	+	1
	1.5+3	0	0	0	+	0	+
	0+1.5	0	0	0	0	+	0

816

7

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	8	84
	50+80	0	0	0	0	0	0
	35+50	0	0	0	0	0	0
	20+35	0	0	0	0	0	1
	10+20	0	0	0	0	1	5
	6+10	0	0	0	0	0	1
	3+6	0	0	0	0	0	0
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	1	0

155

8

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	1	85
	50+80	0	0	0	0	0	0
	35+50	0	0	0	0	0	1
	20+35	0	0	0	0	0	3
	10+20	0	0	0	0	1	6
	6+10	0	0	0	0	1	3
	3+6	0	0	0	0	0	0
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	0

521

9

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	+	66
	50+80	0	0	0	0	0	1
	35+50	0	0	0	0	0	+
	20+35	0	0	0	0	0	+
	10+20	0	0	0	+	1	15
	6+10	0	0	0	0	+	6
	3+6	0	0	0	+	0	+
	1.5+3	0	0	0	0	0	+
	0+1.5	0	0	0	0	0	+

970

10

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	1	63
	50+80	0	0	0	0	+	1
	35+50	0	0	0	0	+	+
	20+35	0	0	0	+	+	8
	10+20	0	0	+	+	1	14
	6+10	0	0	0	+	1	6
	3+6	0	0	0	0	+	1
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	+

1240

14

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	1	75
	50+80	0	0	0	0	0	+
	35+50	0	0	0	0	+	4
	20+35	0	0	0	0	+	5
	10+20	0	0	0	0	+	8
	6+10	0	0	0	+	1	4
	3+6	0	0	0	0	+	+
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	0

763

15

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	0	60
	50+80	0	0	0	0	0	0
	35+50	0	0	0	0	0	0
	20+35	0	0	0	0	0	3
	10+20	0	0	0	0	1	21
	6+10	0	0	0	0	0	11
	3+6	0	0	0	0	0	0
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	1

107

16

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	0	2	51
	50+80	0	0	0	0	0	3
	35+50	0	0	0	0	1	0
	20+35	0	0	0	0	1	13
	10+20	0	0	0	0	2	15
	6+10	0	0	0	0	1	8
	3+6	0	0	0	0	0	0
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	0

172

17

		VISIBILITY					
		$< 1/2$	$1/2$	1	2	5	≥ 10
LOW CLOUD CEILING	NC	0	0	0	1	+	66
	50+80	0	0	0	0	+	+
	35+50	0	0	0	0	+	1
	20+35	0	0	0	0	2	5
	10+20	0	+	0	1	3	9
	6+10	0	0	0	0	2	6
	3+6	0	0	0	+	1	0
	1.5+3	0	0	0	0	0	0
	0+1.5	+	0	+	0	+	0

256

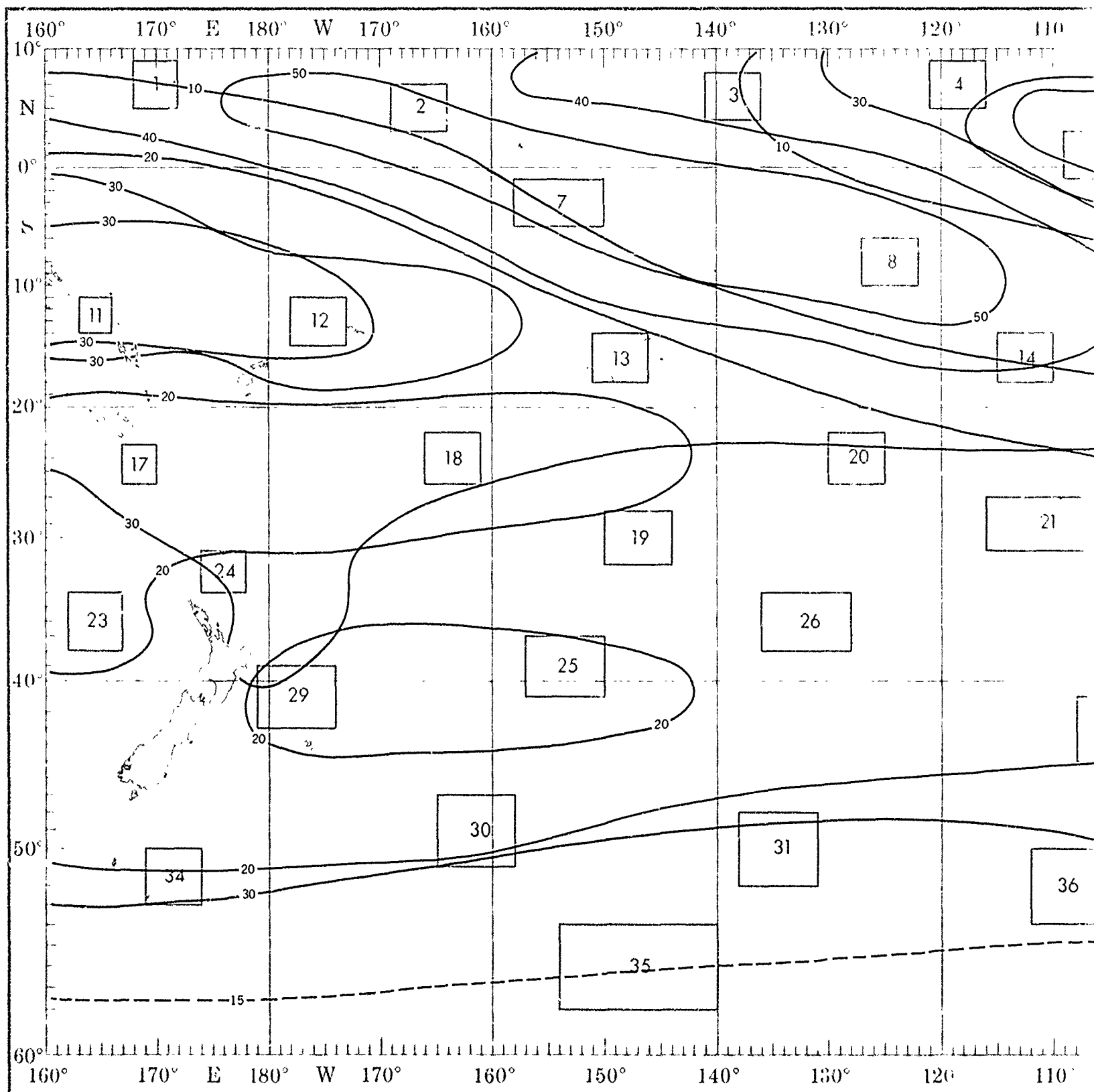
19

		VISIBILITY					
		<1/2	1/2	1	2	5	≥10
LOW CLOUD CEILING	NC	+	0	0	+	2	55
	50+80	0	0	0	+	0	+
	35+50	0	0	0	0	+	4
	20+35	0	+	0	0	1	4
	10+20	0	0	0	+	3	13
	6+10	+	+	+	1	4	8
	3+6	+	0	0	+	2	+
1.5+3	0	0	0	+	0	+	
0+1.5	0	0	0	0	0	0	

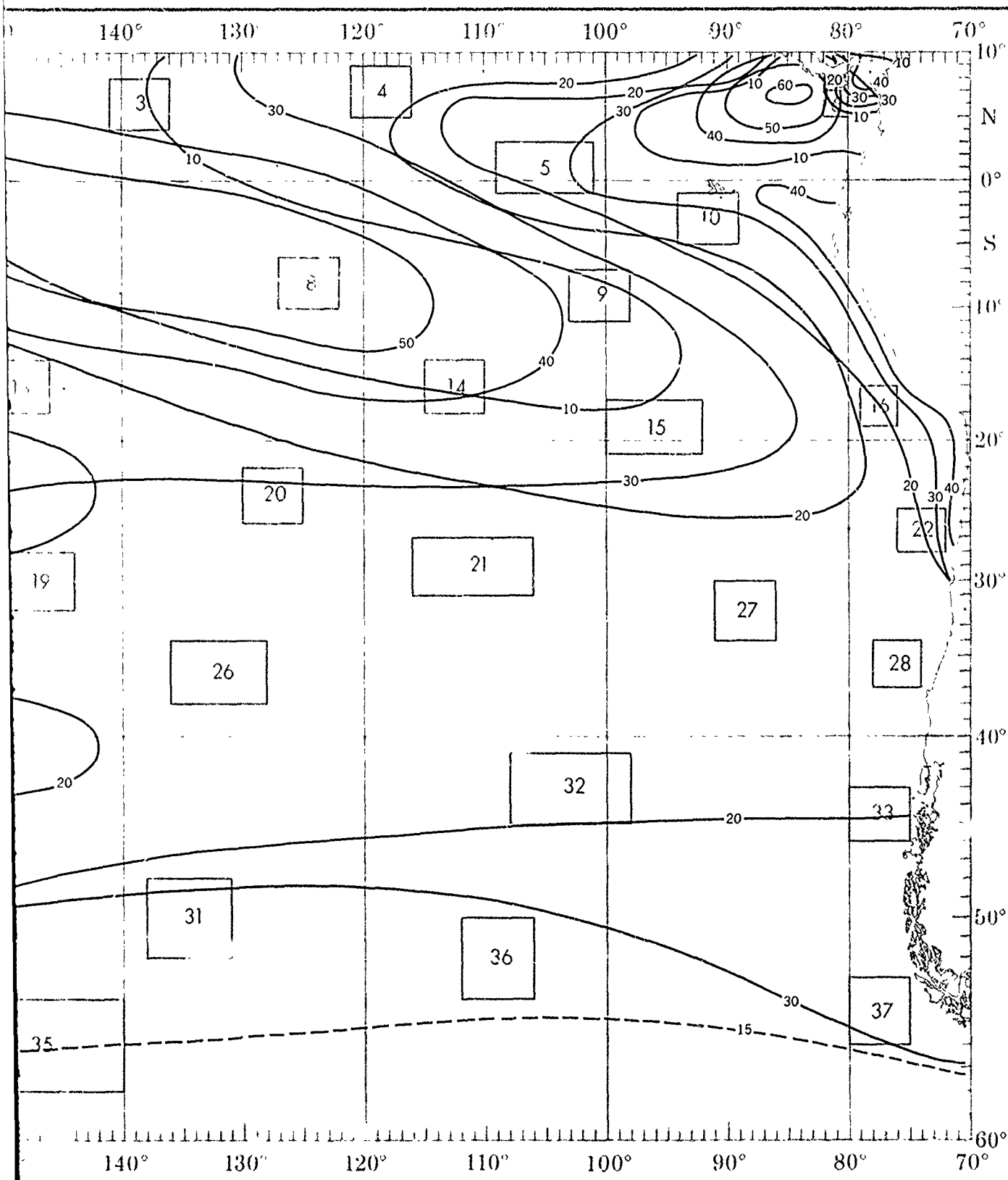
END

JANUARY

WIND-VIS



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbj) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet

WIND SPEED (knots)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	1	1	1	1	0
<6 & OR <2	2	2	1	1	1
Vsbj <2	1	2	1	1	1
<10 & OR <5	3	4	2	1	1
<20 & OR <5	8	9	6	5	2
Vsbj ≥5	9	11	12	3	1
≥50 & ≥5	12	13	15	7	3
NC & ≥10	4	2	1	1	0

1234

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is ≥5/8

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles)

'N C' (no ceiling) includes bases of clouds ≥8000 feet as well as occurrences of N_h <5/8.

indicates <5% but >0

← Number of observations

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions LCC ≥5000 ft, (or no LCC), Vsbj ≥5 nm and Wind 11-21 kts

RED LINE - Percent frequency of poor conditions LCC <300 ft, Vsbj <1 nm, Wind <6 or ≥34 kts

Satisfactory conditions between poor and optimum

11

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	1	0	0	0	0
<6 & OR <2	1	1	0	1	1
Vsbj <2	0	0	0	0	0
<10 & OR <5	3	4	0	6	7
<20 & OR <5	3	12	9	6	7
Vsbj ≥5	13	45	18	6	0
≥50 & ≥5	9	34	12	3	0
NC & ≥10	7	33	10	3	0

67

12

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	0	2	0
Vsbj <2	0	0	0	1	0
<10 & OR <5	0	9	1	4	2
<20 & OR <5	0	14	4	4	2
Vsbj ≥5	10	61	19	4	0
≥50 & ≥5	10	48	15	1	0
NC & ≥10	10	48	15	0	0

113

13

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	0	2	1
Vsbj <2	0	0	0	1	0
<10 & OR <5	0	2	5	1	0
<20 & OR <5	1	9	12	3	0
Vsbj ≥5	8	43	39	3	0
≥50 & ≥5	7	34	28	2	0
NC & ≥10	6	32	26	1	0

516

14

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	0	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	2	4	0	0
<20 & OR <5	0	4	10	0	0
Vsbj ≥5	3	42	52	3	0
≥50 & ≥5	3	34	37	2	0
NC & ≥10	3	34	36	2	0

758

15

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	1	0	0
<6 & OR <2	0	0	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	4	8	0	0
<20 & OR <5	1	9	23	0	0
Vsbj ≥5	4	31	63	3	0
≥50 & ≥5	2	18	37	3	0
NC & ≥10	2	18	37	3	0

107

16

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	0	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	1	5	2	0	0
<20 & OR <5	3	16	6	0	0
Vsbj ≥5	8	56	33	2	0
≥50 & ≥5	4	30	22	1	0
NC & ≥10	3	27	20	1	0

172

20

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	3	4	1	0
<20 & OR <5	1	5	8	2	0
Vsbj ≥5	8	47	40	4	0
≥50 & ≥5	7	40	30	2	0
NC & ≥10	7	38	28	2	0

759

21

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	7	2	4	0
<20 & OR <5	0	13	5	8	0
Vsbj ≥5	3	61	25	9	1
≥50 & ≥5	3	47	17	1	1
NC & ≥10	3	46	14	1	0

106

22

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	7	5	0	0
<20 & OR <5	3	23	21	2	0
Vsbj ≥5	8	43	45	3	0
≥50 & ≥5	3	9	12	1	0
NC & ≥10	1	7	10	0	0

229

23

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	1	0	0
Vsbj <2	0	0	1	0	0
<10 & OR <5	0	4	7	2	0
<20 & OR <5	1	11	16	4	0
Vsbj ≥5	7	39	44	8	0
≥50 & ≥5	5	24	24	3	0
NC & ≥10	5	24	23	3	0

1000

24

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	1	2	4	3	0
<20 & OR <5	1	9	10	5	0
Vsbj ≥5	8	42	40	7	0
≥50 & ≥5	8	32	28	2	0
NC & ≥10	7	31	28	2	0

345

25

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	1	0	1	0
<6 & OR <2	1	3	1	3	1
Vsbj <2	0	1	0	1	0
<10 & OR <5	1	6	5	5	1
<20 & OR <5	2	12	15	7	1
Vsbj ≥5	5	40	46	8	1
≥50 & ≥5	3	26	21	3	0
NC & ≥10	3	24	21	3	0

349

29

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	1	1	0	0
<6 & OR <2	0	1	1	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	1	7	3	0	0
<20 & OR <5	1	7	13	6	1
Vsbj ≥5	5	32	43	14	1
≥50 & ≥5	4	21	25	6	1
NC & ≥10	4	20	23	5	1

508

30

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	3	3	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	6	9	3	0
<20 & OR <5	0	13	16	3	0
Vsbj ≥5	3	13	56	16	0
≥50 & ≥5	3	3	28	9	0
NC & ≥10	0	3	25	6	0

32

31

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	5	0	0
Vsbj <2	0	0	5	0	0
<10 & OR <5	0	5	16	11	0
<20 & OR <5	0	11	32	11	0
Vsbj ≥5	0	32	47	5	0
≥50 & ≥5	0	5	16	0	0
NC & ≥10	0	5	16	0	0

19

32

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	6	0	0	0
Vsbj <2	0	0	0	0	0
<10 & OR <5	0	6	0	0	0
<20 & OR <5	0	28	0	0	0
Vsbj ≥5	0	50	28	11	0
≥50 & ≥5	0	28	28	11	0
NC & ≥10	0	17	11	11	0

18

33

WIND SPEED (KNOTS)

LCC - Vsbj	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <5	0	1	1	1	0
<6 & OR <2	0	2	7	2	0
Vsbj <2	0	1	1	0	0
<10 & OR <5	0	11	15	7	0
<20 & OR <5	0	15	25	10	0
Vsbj ≥5	1	30	48	16	1
≥50 & ≥5	1	11	19	3	0
NC & ≥10	1	10	16	1	0

122

34

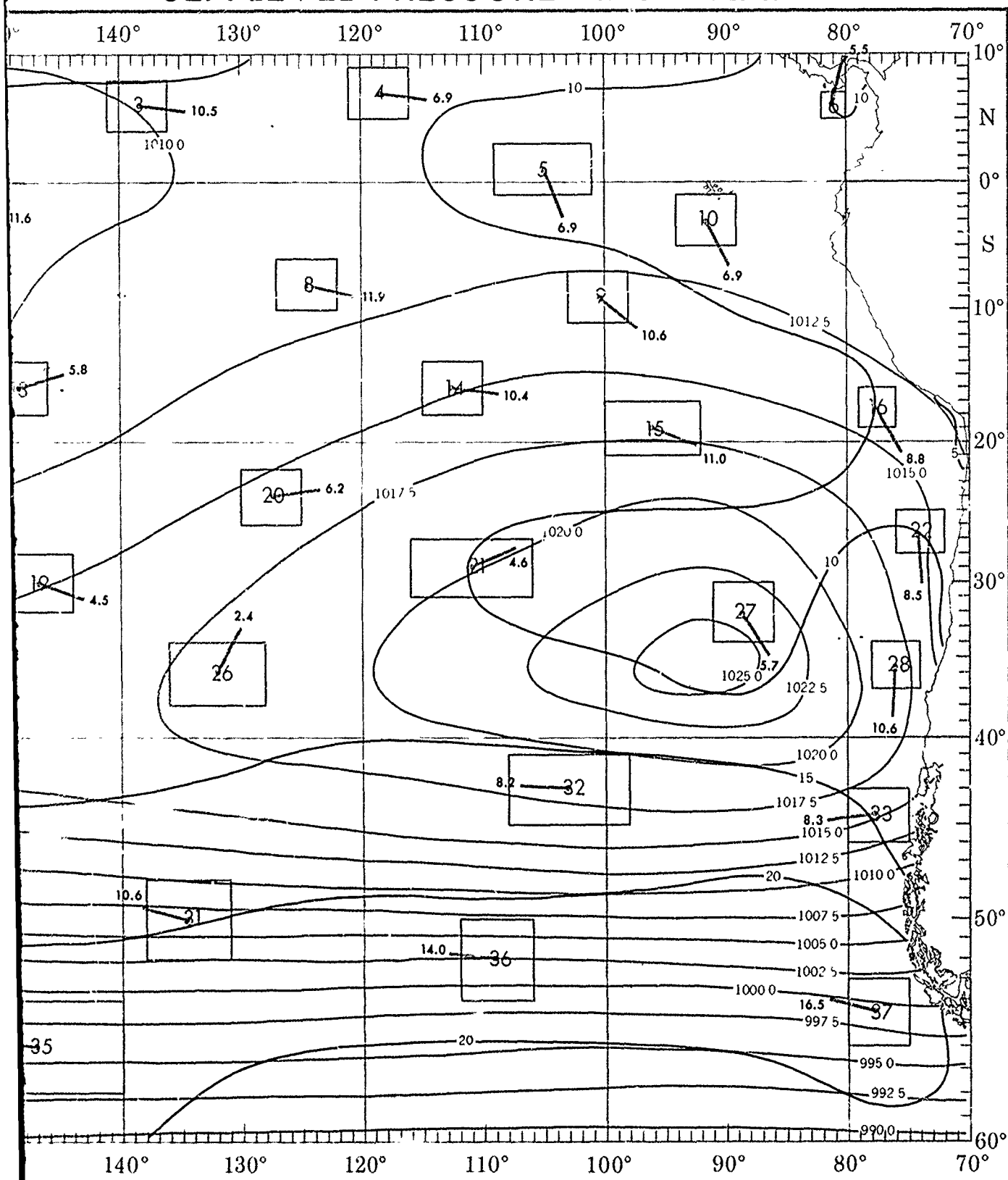
WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33
<1.5 & OR <5	+	2	2	2
<6 & OR <2	+	2	4	2
VSBY <2	+	2	3	1
<10 & OR <5	+	3	9	3
<20 & OR <5	1	7	22	14
VSBY >5	1	11	46	26
≥50 & 45	0	3	14	6
NC > 10	0	1	8	3

SEA LEVEL PRESSURE



SEA LEVEL PRESSURE AND MEAN WIND

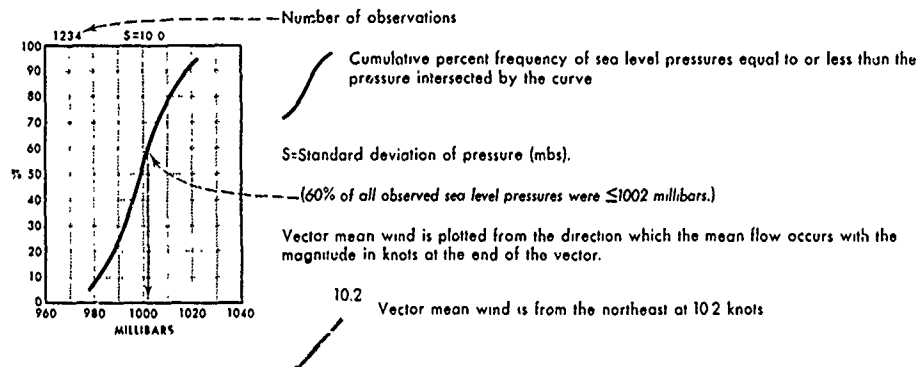


1

2

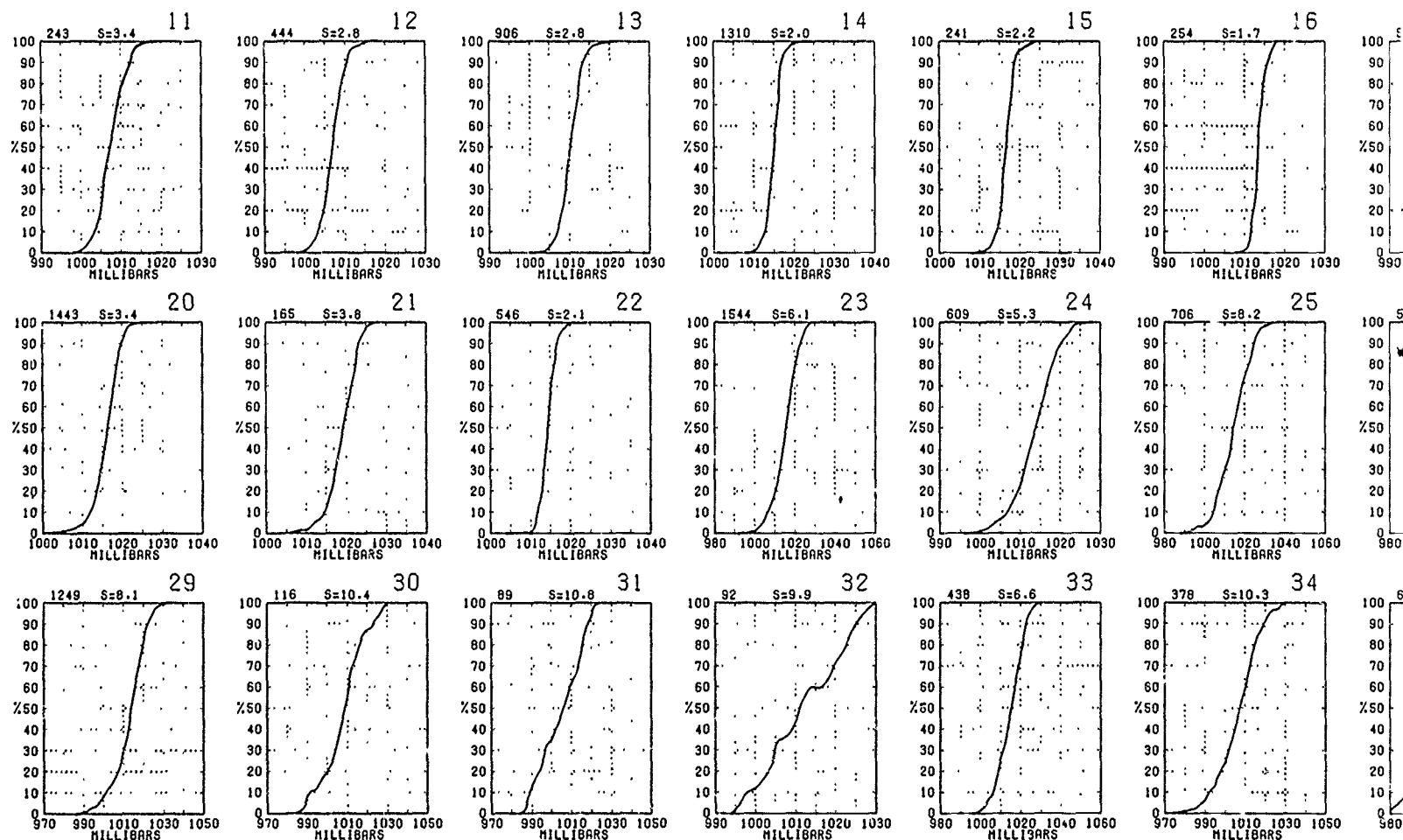
SEA LEVEL PRESSURE

Sea level pressure and mean wind



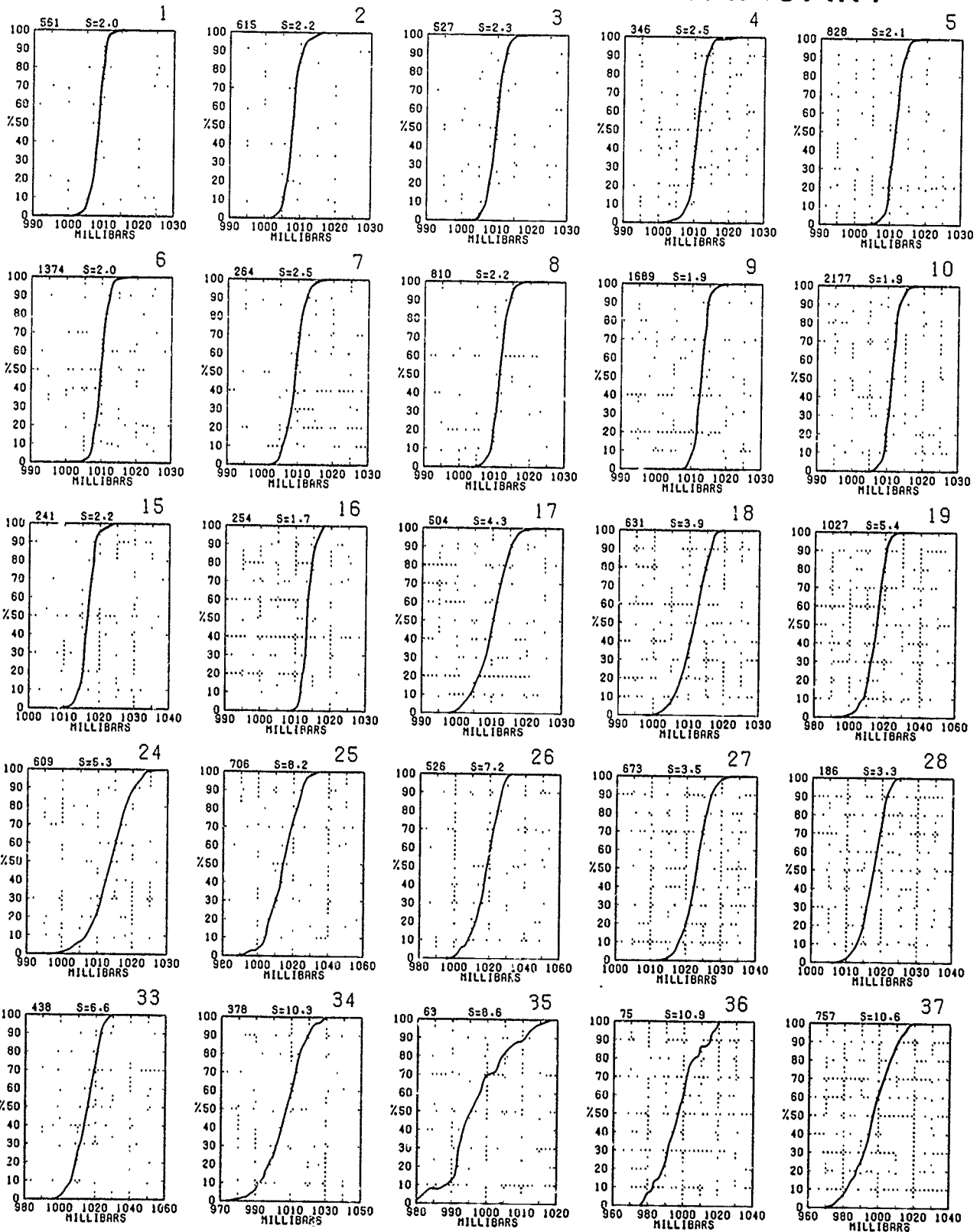
BLUE LINE - Scalar mean wind speed (kts)

RED LINE - Mean sea level pressure (mbs)



Graphs represent the objective compilation of available data for specified areas without regard to sus
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bia

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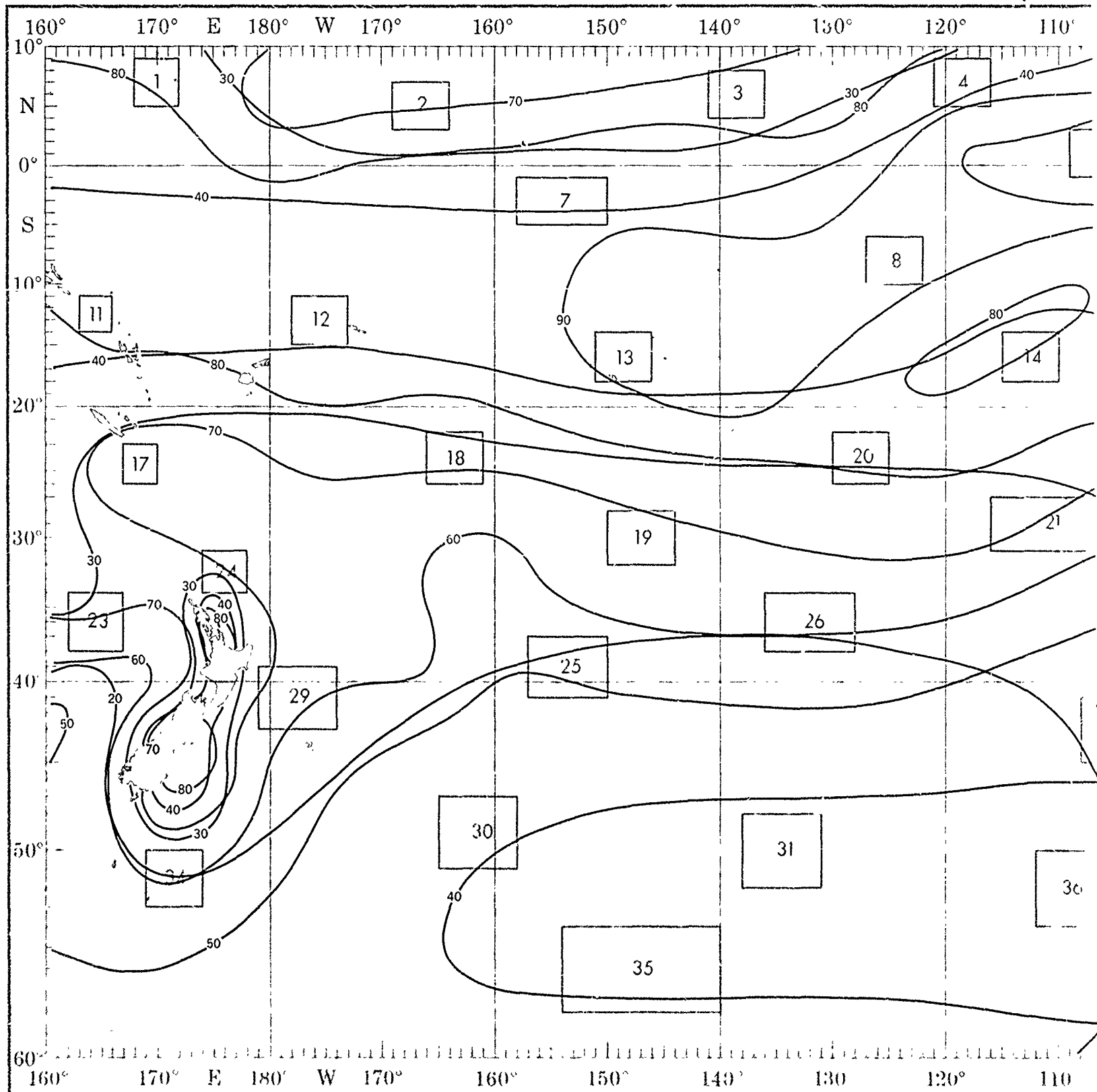
l to or less than the

occurs with the

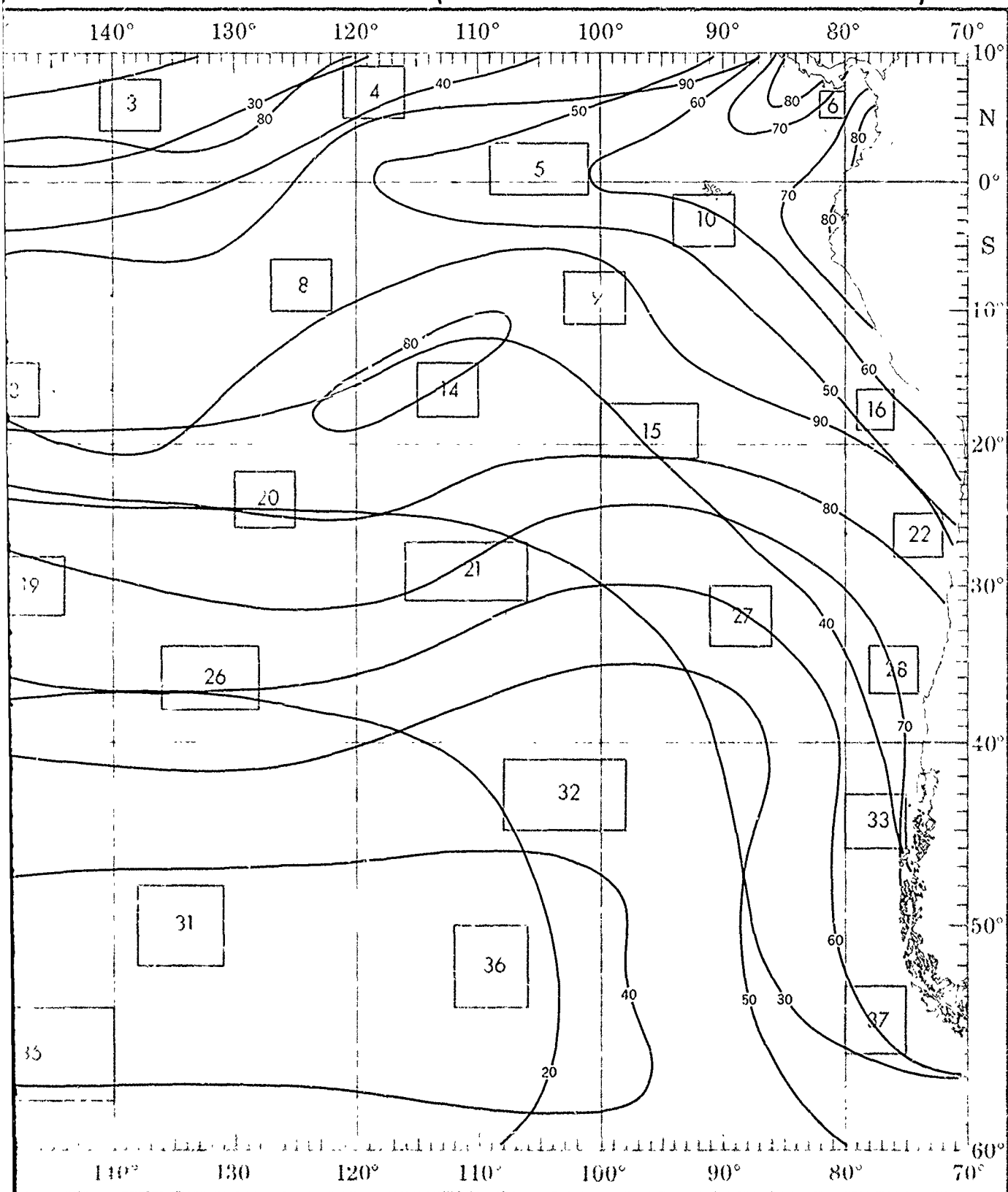
objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

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WAVES (<1.5)



WAVES (<1.5 AND <2.5 METERS)

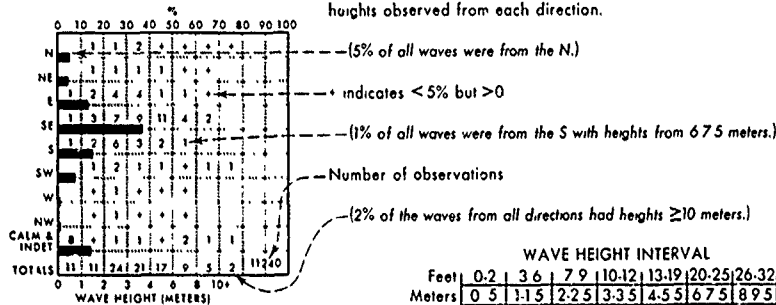


WAVE DIRECTION AND HEIGHT

Wave direction and height

Direction frequency (top scale) Bars represent percent frequency of waves from each direction

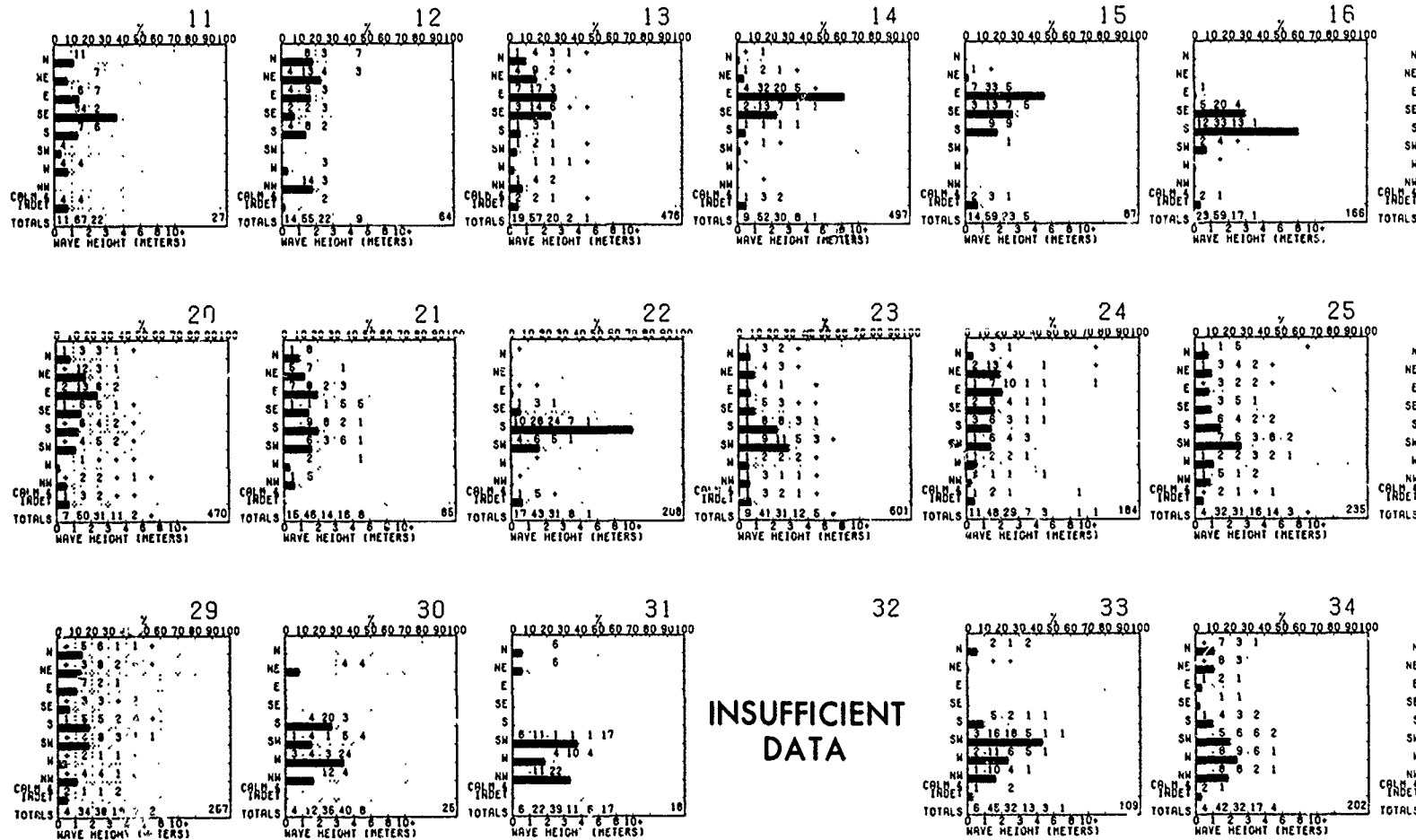
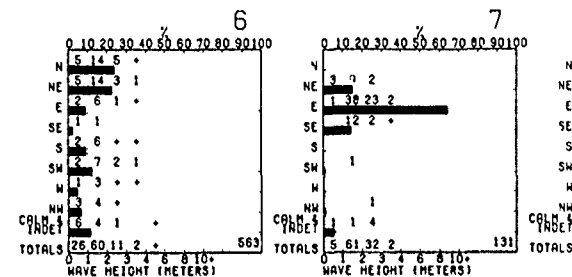
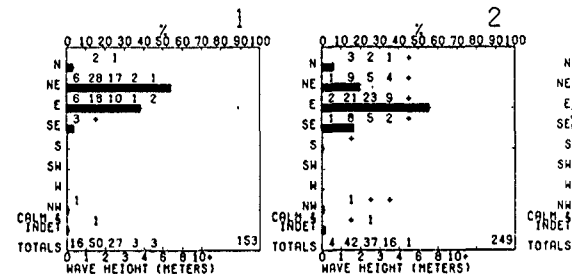
Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction.



WAVE HEIGHT INTERVAL	
Feet	0.2 3.6 7.9 10.12 13.19 20.25 26.32 ≥ 33
Meters	0.5 1.1 2.2 3.3 4.5 6.7 8.9 ≥ 10
Printed scale on bottom of chart	

BLUE LINE - Percent frequency of wave height <1.5 meters (5 feet)

RED LINE - Percent frequency of wave height <2.5 meters (8 feet)



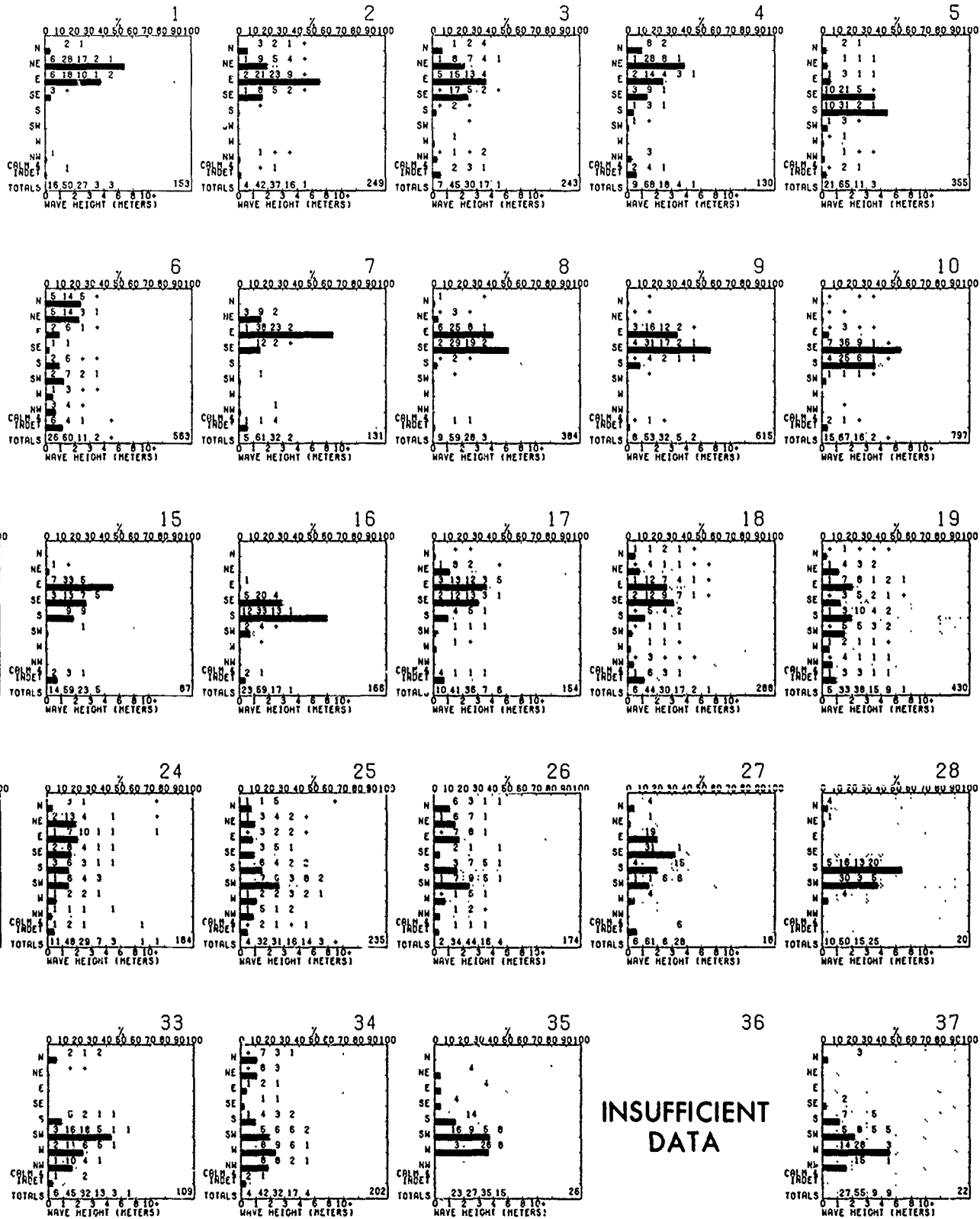
Graphs represent the objective compilation of available data for specified areas without regard to the sopeleth analyses (opposite page) are based on all available data subjectively adjusted where

HEIGHT

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Frequency of waves from
sent frequency of wave

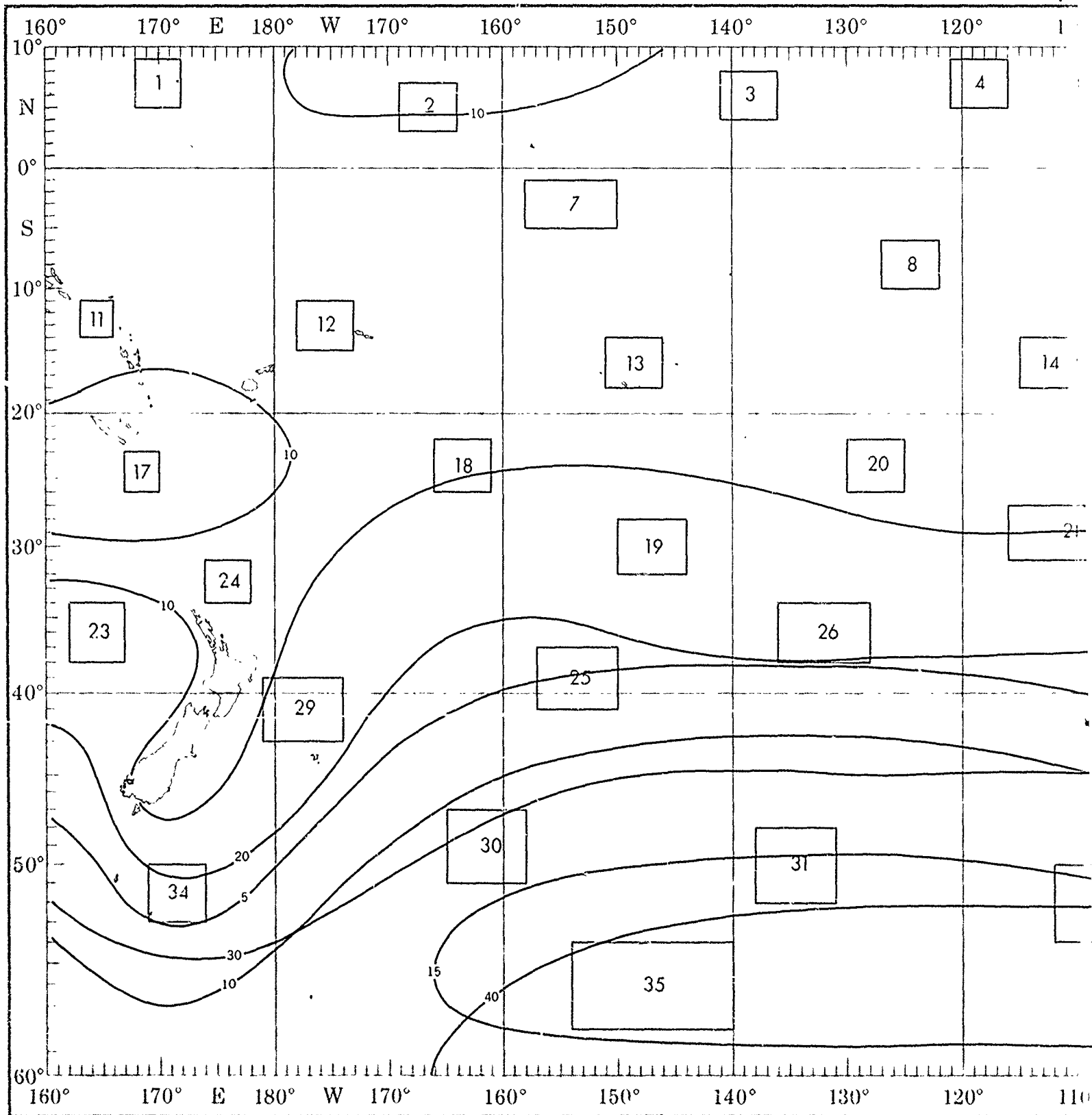
>33
>10



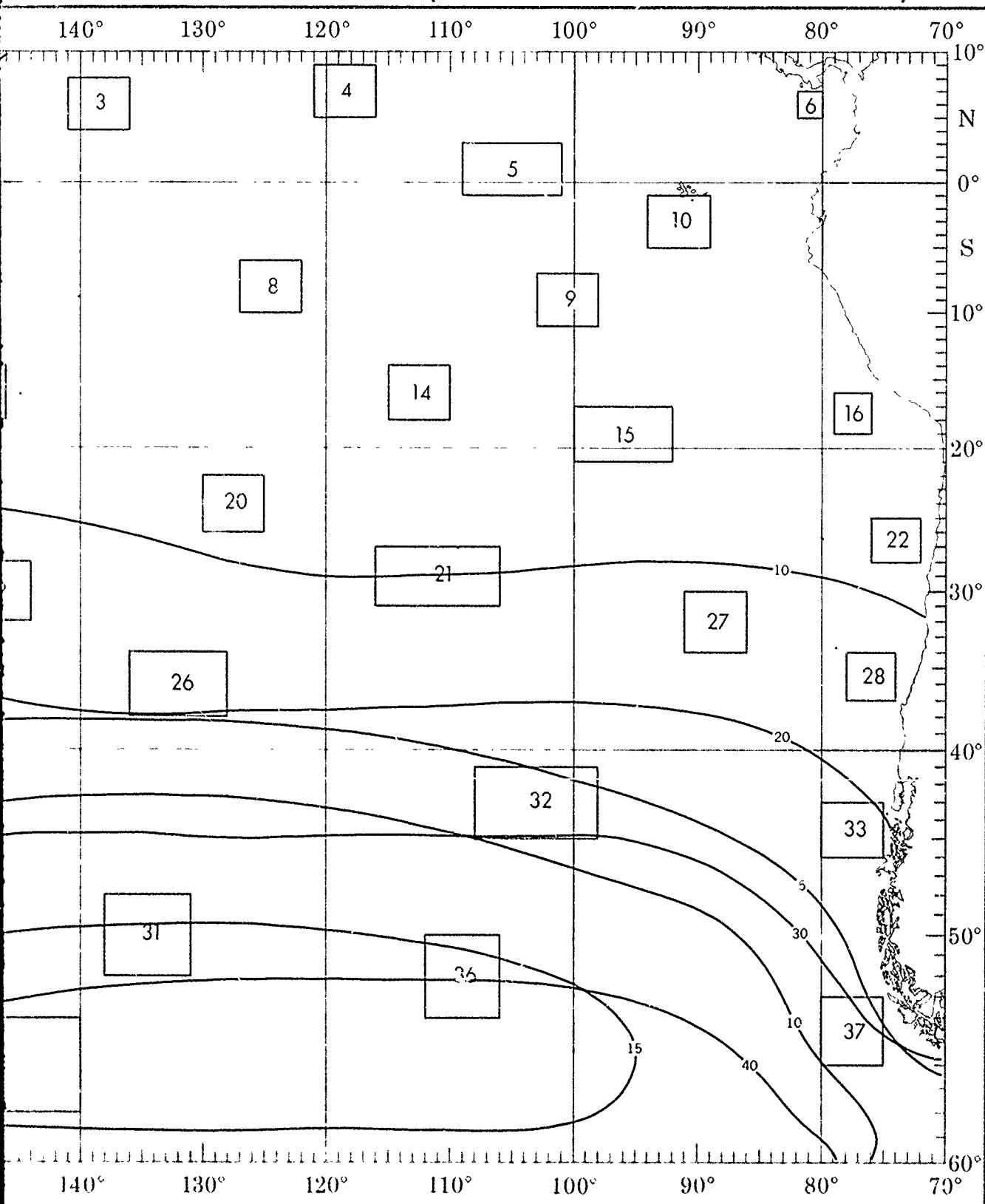
Objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

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WAVES (2)



WAVES (≥ 3.5 AND ≥ 6 METERS)



1

1

2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height

HEIGHT (inches)	PERIOD (Seconds)							
	≤ 6	6	8	10	12	≥ 13	GO	
0-5	21	3	1	+	+	+		
1-15	22	16	6	2	1	+	+	
2-25	3	6	4	3	1	+	+	
3-35	+	1	1	1	1	+	+	
4-55	+	+	+	+	+	+	+	
6-75	0	+	+	0	0	+	0	
8-85	0	0	0	+	0	0	0	
≥ 10	0	0	0	0	0	+	0	

-(2% of observed waves had a height of 1.15 meters and a period of 10-11 seconds)

indicates $< 5\%$ but > 0

Number of observations

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE . Percent frequency of wave height ≥ 6 meters (20 feet)

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6- 7	8- 9	10- 11	12- 13	14- 15	16- 17	18- 19
0-5	7	0	0	0	0	0	4
1-1.5	33	22	4	4	0	0	4
2-2.5	0	11	11	11	0	0	0
3-3.5	0	0	0	0	0	0	0
4-4.5	0	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCH)	PERIOD (SECONDS)						
	6-	7	8-	9	10-	11-	12-
0-5	12	3	0	0	0	0	0
1-4	15	28	6	2	3	0	0
2-3	3	8	5	0	3	2	2
3-5	5	0	0	0	0	0	0
4-5	0	5	5	0	0	0	0
6-7	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

	PERIOD (SECONDS)						
HEIGHT (MTRS)	6-	8-	10-	12-	13	>13	IND
0-5	13	4	1	1	0	0	2
1-1.5	22	21	5	1	1	1	4
2-2.5	3	8	4	1	+	+	3
3-3.5	+	+	1	+	0	0	0
4-5	+	+	+	0	0	0	+
6-7.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)						IND
	6-7	7-8	8-9	10-11	12-13	13-14	
0-5	8	+	+	0	0	0	1
1-1.5	23	20	4	1	2	1	2
2-2.5	7	14	5	1	+	0	2
3-3.5	1	4	1	1	+	+	0
4-4.5	0	+	+	0	0	0	+
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

		PERIOD (SECONDS)							15
HEIGHT (MTRS)	6-7	7-8	8-9	10-11	11-12	12-13	13-14	IND	
0-5	10	1	0	0	0	0	0	2	
1-1.5	25	17	7	6	0	0	0	3	
2-2.5	7	6	7	5	1	3	1	1	
3-3.5	0	5	0	0	0	0	0	0	
4-4.5	0	0	0	0	0	0	0	0	
5-5.5	0	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6-8	8-9	9-10	10-11	11-12	12-13	13-14
0-5	14	3	3	0	0	0	5
1-1.5	20	21	10	3	1	0	2
2-2.5	4	4	7	2	0	0	0
3-3.5	0	0	1	0	0	0	0
4-4.5	0	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)					
	6-	7	8	10-	12-	JNO
0-5	6	+	0	0	0	1
1-1.5	20	13	7	2	1	4
2-2.5	6	11	7	3	1	0
3-3.5	+	4	4	1	1	+
4-5.5	+	+	1	+	0	+
6-7.5	0	+	+	0	0	0
8-9.5	0	0	0	0	0	0
≥10	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)							JND
	6-	7	8-	9	10-	11	12-	
0-6.5	15	0	0	0	0	0	0	1
1-6.5	14	16	8	3	3	0	0	0
2-6.5	1	5	6	2	0	0	0	0
3-2.5	0	2	6	5	3	0	0	0
4-6.5	0	3	2	1	0	0	0	1
6-7.5	0	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6-7	7-8	8-9	9-10	10-11	11-12	12-13
0-5	12	2	1	0	0	0	4
1-1.5	16	11	6	3	0	+	6
2-2.5	5	7	13	3	1	1	+
3-3.5	1	2	12	1	1	+	0
4-4.5	0	0	1	0	+	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

	PERIOD (SECONDS)							
HEIGHT (INCHES)	6-7	8-9	10-11	12-13	14-15	16-17	18-19	IND.
0-5	9	1	*	*	U	U	1	
1-1.5	17	13	5	2	*	*	1	
2-2.5	4	11	8	3	2	1	2	
3-3.5	1	4	3	2	1	*	1	
4-4.5	0	1	3	*	*	*	*	
5-5.5	0	0	0	*	0	*	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
>10	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)						IND.
	0-5	6-7	8-9	10-11	12-13	14-15	
0-5	13	1	0	1	0	0	2
1-5	17	12	4	3	2	0	6
2-5	5	9	5	2	3	1	3
3-5	0	2	3	1	0	1	1
4-5	0	0	2	0	1	1	0
5-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	1
10	0	0	1	0	0	0	0

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	PERIOD (SECONDS)								
HEIGHT [INCHES]	6-	7	8	10-	12-	+13	HQ		
0-4	4	1	0	+	0	0	2		
4-6	11	12	6	+	1	*	3		
6-8	7	14	8	3	+	*	3		
8-9	4	3	2	1	0	+	2		
9-10	1	1	1	3	1	1	0		
10-11	0	0	1	+	0	*	0		
11-12	0	0	0	0	0	0	0		
>12	0	0	0	0	0	0	0		

29C

HEIGHT (MTRS)	PERIOD (SECONDS)						
	6-7	8-9	10-11	12-13	14-15	16-17	IND
0-0.5	4	0	0	0	0	0	0
1-1.5	4	8	0	0	0	0	0
2-2.5	4	28	4	0	0	0	0
3-3.5	16	4	12	8	0	0	0
4-4.5	0	4	0	4	0	0	0
5-5.5	0	0	0	0	0	G	0
6-6.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)						END
	6-7	7-8	8-9	10-11	12-13	13-14	
0-5	0	0	6	0	0	0	
1-5	11	0	0	6	6	0	
2-5	11	0	6	0	17	6	
3-8	0	6	6	0	0	0	
4-8	0	0	6	0	0	0	
6-7	0	0	11	0	6	0	
9-9	0	0	0	0	0	7	
>10	0	0	0	0	0	0	

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**INSUFFICIENT
DATA**

33

HEIGHT (INCHES)	PERIOD (SECONDS)						END
	6-	7	8	10	12	13	
0-6	2	1	0	0	0	0	5
1-6	14	14	4	0	0	1	13
2-8	2	8	14	4	1	0	4
3-6	2	4	1	2	0	2	3
4-6	2	0	0	0	1	0	0
6-7	0	0	0	0	0	1	0
8-9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0

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INSUFFICIENT
DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where necessary.

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ends.

h are reported if both

[illegible][illegible]

3

	PERIOD (SECONDS)								
HEIGHT (FT/MS)	6-	7	8	9	10	12-	>13	FIND	
0-5	6	+	0	0	0	0	+		
1-5	18	13	10	+	1	0	2		
2-5	4	11	8	3	1	0	4		
3-5	2	2	7	3	1	+	1		
4-5	0	0	1	0	0	0	0		
6-7	0	0	0	0	0	0	0		
8-9	0	0	0	0	0	0	0		
>10	0	0	0	0	0	0	0		

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		PERIOD (SECONDS)						
HEIGHT (INCHES)	6-8	8-9	9-10	10-11	11-12	12-13	13-15	WIND
0-5	6	0	1	0	0	0	3	
1-1.5	24	26	12	1	2	0	3	
2-2.5	2	9	2	2	0	1	1	
3-3.5	1	1	0	2	0	0	0	
4-4.5	0	0	0	0	0	0	1	
5-7.5	0	0	0	0	0	0	0	
8-9.5	0	0	0	0	0	0	0	
≥10	0	0	0	0	0	0	0	

		PERIOD (SECONDS)						
HEIGHT (MTRS)	<6	6-7	7-8	8-9	10-11	12-13	13-19	TWO
		0	1	2	3	4	5	6
0-5	15	6	1	1	0	0	1	
1-5	25	24	7	2	2	1	3	
2-5	3	3	3	3	0	1	0	1
3-5	0	1	1	1	0	0	0	0
4-5	0	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0

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HEIGHT (INCHES)	PERIOD (SECONDS)						
	6-7	7-8	8-9	9-10	10-11	11-12	12-13
0-5	2	0	1	0	0	0	2
1-1.5	25	12	16	2	2	0	4
2-2.5	4	11	8	0	2	2	6
3-3.5	0	0	0	1	2	0	0
4-4.5	0	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0

HEIGHT (MTR)	PERIOD (SECONDS)							IND
	6-7	7-8	8-9	10-11	11-12	12-13	13-14	
0-5	8	1	1	+	0	0	+	
1-1.5	22	25	6	1	1	2	1	
2-2.5	2	16	5	3	1	+	2	
3-3.5	0	1	+	1	+	0	0	
4-4.5	0	0	0	0	0	0	0	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)							NO
	6-7	8-9	10-11	12-13	14-15	16-17	18-19	
0-5	6	1	0	0	0	0	0	2
1-1.5	23	18	7	1	1	1	1	1
2-2.5	8	15	6	+	+	1	+	+
3-3.5	1	3	1	1	0	0	0	0
4-4.5	+	+	+	1	0	0	0	0
5-5.5	0	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0	0

HEIGHT (METERS)	PERIOD (SECONDS)						
	6-	6-	8-	10-	12-	13-	IND
0-5	12	1	+	1	0	0	3
1-1.5	28	23	8	2	2	1	1
2-2.5	4	7	2	2	+	+	+
3-3.5	+	1	+	+	0	+	0
4-4.5	+	0	0	+	0	0	0
6-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)							END
	6-7	7-8	8-9	9-10	10-11	11-12	12-13	
0-5	10	1	0	0	0	0	0	2
1-6	25	17	7	6	0	0	0	3
2-9	7	6	0	5	1	3	1	1
3-9	0	5	0	0	0	0	0	0
4-9	0	0	0	0	0	0	0	0
5-7	0	0	0	0	3	0	0	0
6-9	0	0	0	0	0	0	0	0
7-10	0	0	0	0	0	0	0	0

HEIGHT (INCH)	PERIOD (SECONDS)						IND
	6-7	7-8	8-9	9-10	10-11	11-12	
0-5	14	3	3	0	0	0	5
1-5	20	21	10	3	1	0	2
2-5	4	4	7	2	0	0	0
3-5	0	0	1	0	0	0	0
4-5	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6-7	7-8	8-9	10-11	11-12	12-13	IND
0-5	6	0	1	0	0	0	5
1-1-6	15	15	5	1	3	1	0
2-8-8	9	9	10	4	0	2	1
3-6-8	1	2	3	1	0	1	0
4-8-8	2	2	2	0	0	0	0
6-7-5	0	0	0	0	0	0	0
8-9-5	0	0	0	0	0	0	0
≥10	0	0	0	0	0	0	0

PERIOD (SECONDS)										18
HEIGHT (MTRS)	8	9	10	11	12	13	14	15	TWO	
0-5	5	+	0	0	0	0	0	1		
1-1.5	15	16	5	1	+	0	6			
2-2.5	4	11	8	2	1	1	3			
3-3.5	3	7	5	1	1	0	1			
4-4.5	+	+	1	+	+	0	0			
5-5.5	0	0	0	+	1	0	0			
6-6.5	0	0	0	0	0	0	0			
7-7.5	0	0	0	0	0	0	0			
8-8.5	0	0	0	0	0	0	0			
9-9.5	0	0	0	0	0	0	0			
10-10.5	0	0	0	0	0	0	0			

[illegible]

HEIGHT (INCH)	PERIOD (SECONDS)							
	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14
6-6	1	1	0	1	0	0	0	2
6-7	17	12	4	3	2	0	0	8
6-8	5	9	5	2	3	1	3	3
6-9	0	2	3	1	0	1	1	1
6-10	0	0	2	0	1	1	0	0
6-11	0	0	0	0	0	0	0	0
6-12	0	0	0	0	0	0	0	1
6-13	0	0	1	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)										NO.
	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	
4-5	3	0	0	0	0	0	0	0	0	0	
5-6	11	12	7	5	0	0	0	2			
6-7	6	8	8	5	1	1	2				
7-8	3	5	4	3	1	1	1				
8-9	0	0	1	1	2	1	1				
9-10	0	0	1	1	0	0	0				
10-11	0	0	0	0	0	0	0				
11-12	0	0	0	0	0	0	0				

HEIGHT (INCH)	PERIOD (SECONDS)							END
	6-7	7-8	8-9	9-10	10-11	11-12	12-13	
0-5	3	0	0	0	0	0	1	
1-6	17	10	4	2	1	0	0	
2-3	9	19	10	4	0	0	2	
3-4	3	6	3	1	0	1	0	
4-5	1	1	1	1	1	0	0	
6-7	0	0	0	0	0	0	0	
8-9	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	

[illegible]

WEIGHT (ATONS)	PERIOD (SECONDS)						
	6-	7-	8-	10-	12-	15-	180
0-5	5	0	5	0	0	0	0
1-5	20	10	20	0	0	0	0
2-5	5	10	0	0	0	0	0
3-5	10	5	0	0	0	0	0
4-5	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

MEASUREMENT (INCHES)	PERIOD (SECONDS)						
	10-6	7	5	10-11	12-13	13	140
0-6	2	1	0	0	0	C	5
1-1.5	14	14	4	0	0	1	13
2-2.5	2	8	14	4	1	0	4
3-3.5	2	4	1	2	0	2	3
4-4.5	2	0	0	0	1	0	0
5-7.5	0	0	0	0	0	1	0
8-8.5	0	0	0	0	0	0	0
≥10	0	0	0	0	0	0	0

		PERIOD (SECONDS)							34	
HEIGHT (MTRS)		6-7	7-8	8-9	9-10	10-11	11-12	12-13	TMO	
		6-7	7-8	8-9	9-10	10-11	11-12	12-13		
0-6		2	0	0	0	0	0	0	2	
1-6		21	14	4	1	1	0	0	1	
2-6		5	11	8	7	0	1	0	0	
3-6		2	5	5	4	1	1	0	0	
4-6		0	1	1	1	0	0	0	0	
5-6		0	0	0	0	0	0	0	0	
6-6		0	0	0	0	0	0	0	0	
7-6		0	0	0	0	0	0	0	0	
8-6		0	0	0	0	0	0	0	0	
9-6		0	0	0	0	0	0	0	0	
10-6		0	0	0	0	0	0	0	0	

HEIGHT (INCH)	PERIOD (SECONDS)						
	6-	7	8	10-	12-	13	14
0-5	0	0	0	0	0	0	0
1-1.5	23	0	0	0	0	0	0
2-2.5	23	4	0	0	0	0	0
3-3.5	0	0	31	0	0	4	0
4-4.5	0	0	12	4	0	0	0
5-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0

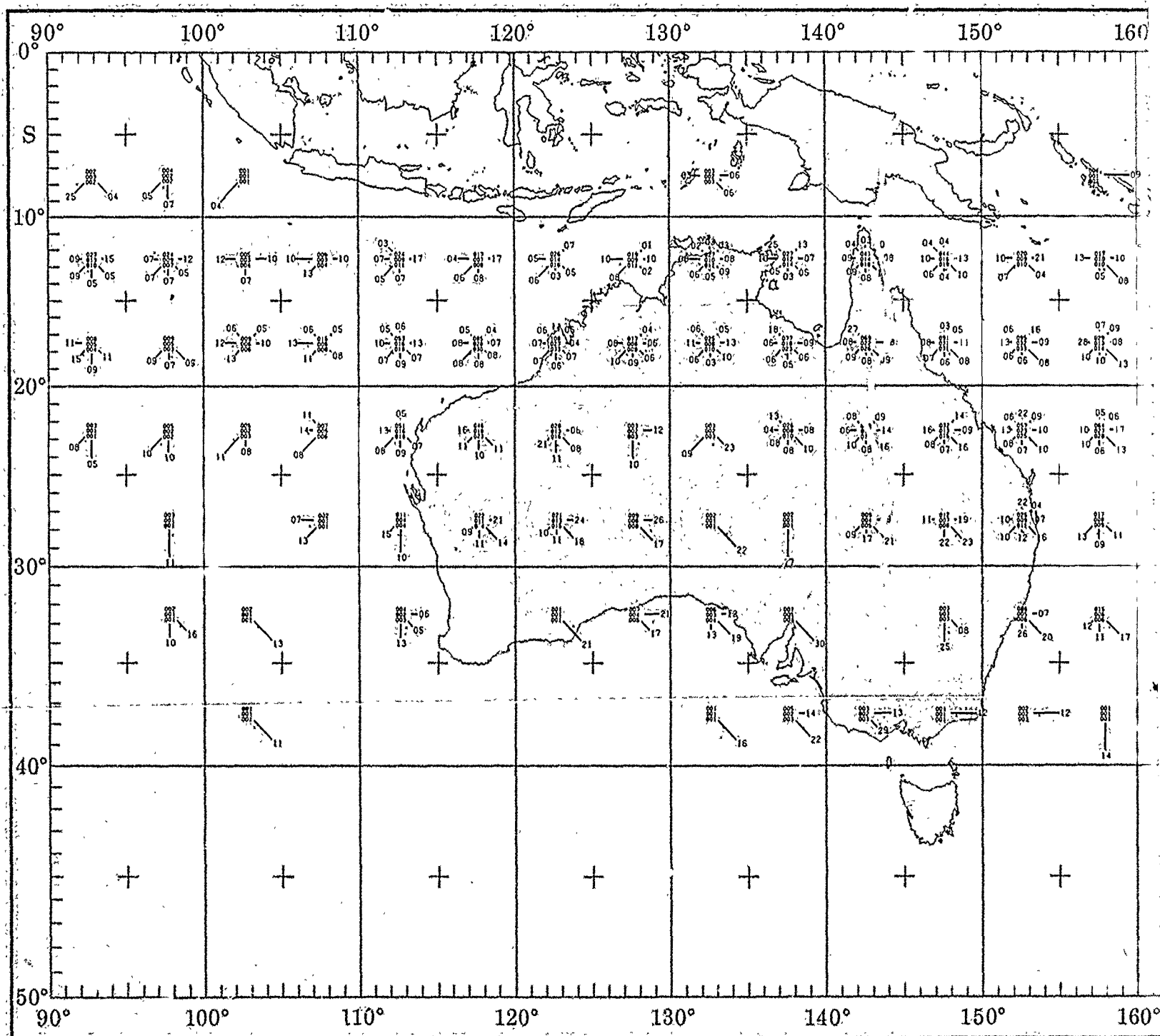
HEIGHT (INCH)	PERIOD (SECONDS)						END
	6-8	8-9	9-10	10-11	11-12	12-13	
0-5	0	0	0	0	0	0	
1-10	13	4	4	0	4	0	
2-5	22	4	26	0	0	0	
3-8	0	0	4	4	0	4	
4-8	4	4	0	0	0	0	
6-9	0	0	0	0	0	0	
8-9	0	0	0	0	0	0	
10	0	0	0	0	0	0	

INSUFFICIENT DATA

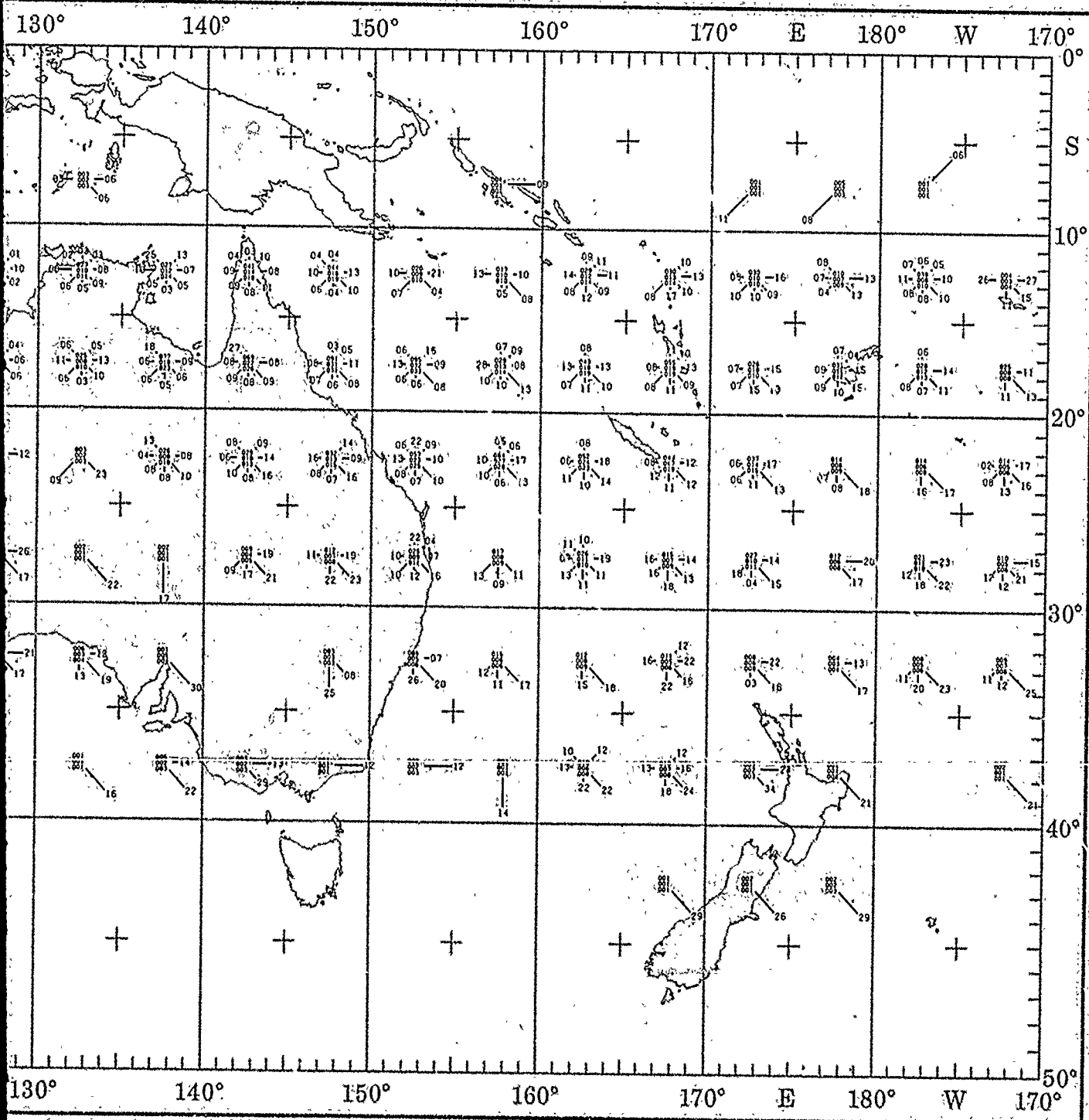
INSUFFICIENT DATA

objective compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

JANUARY



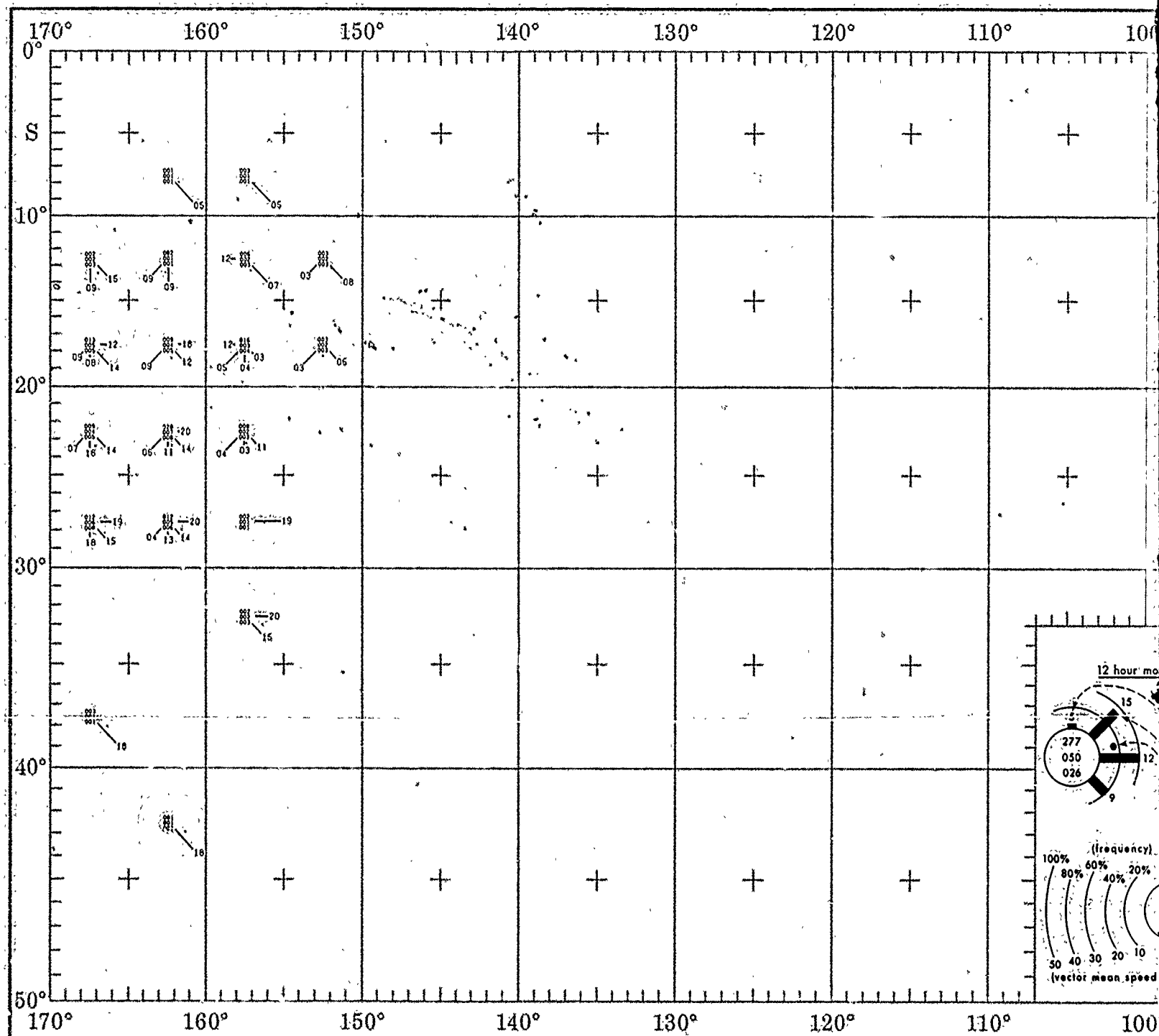
TROPICAL CYCLONE



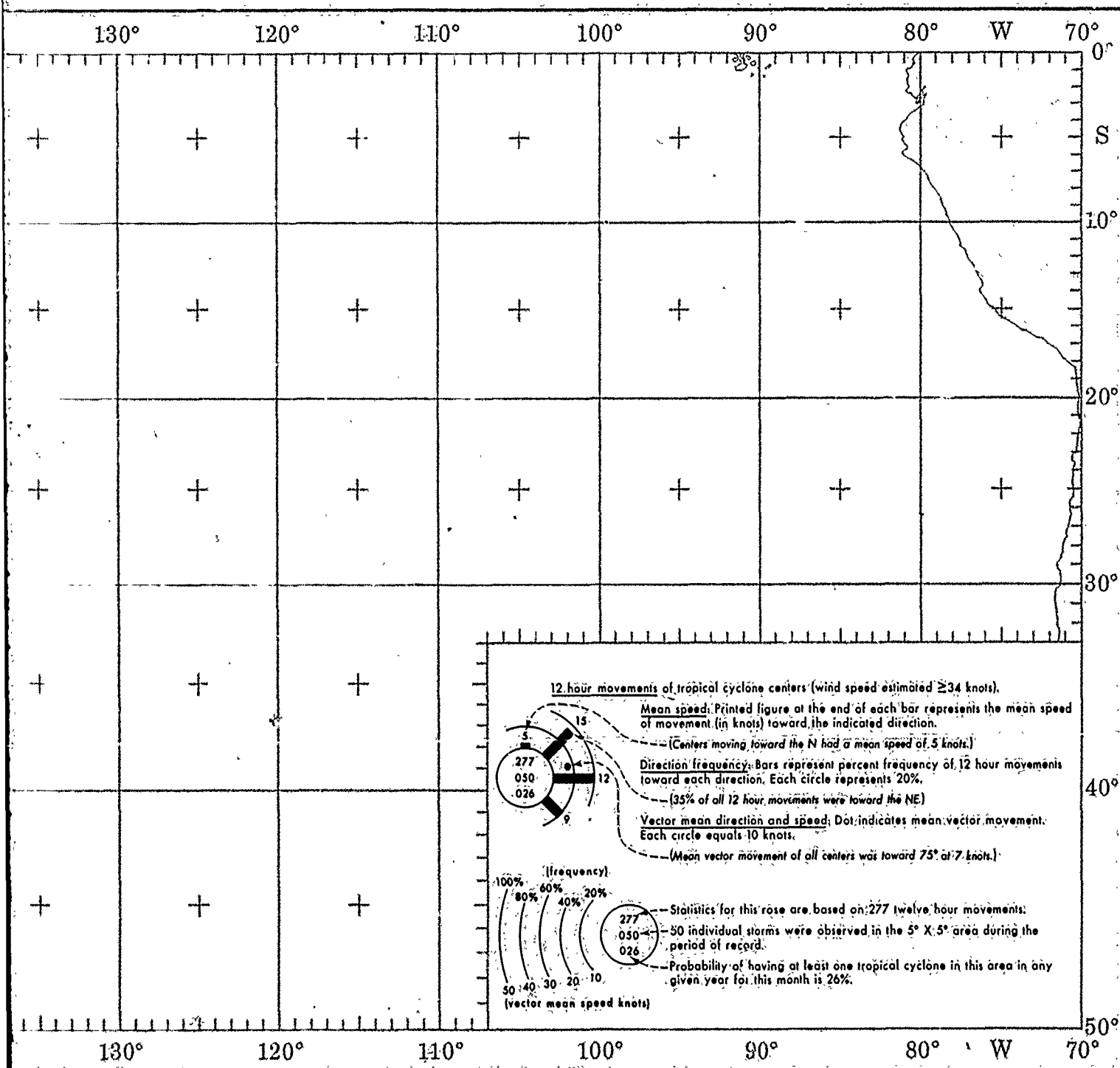
1

2

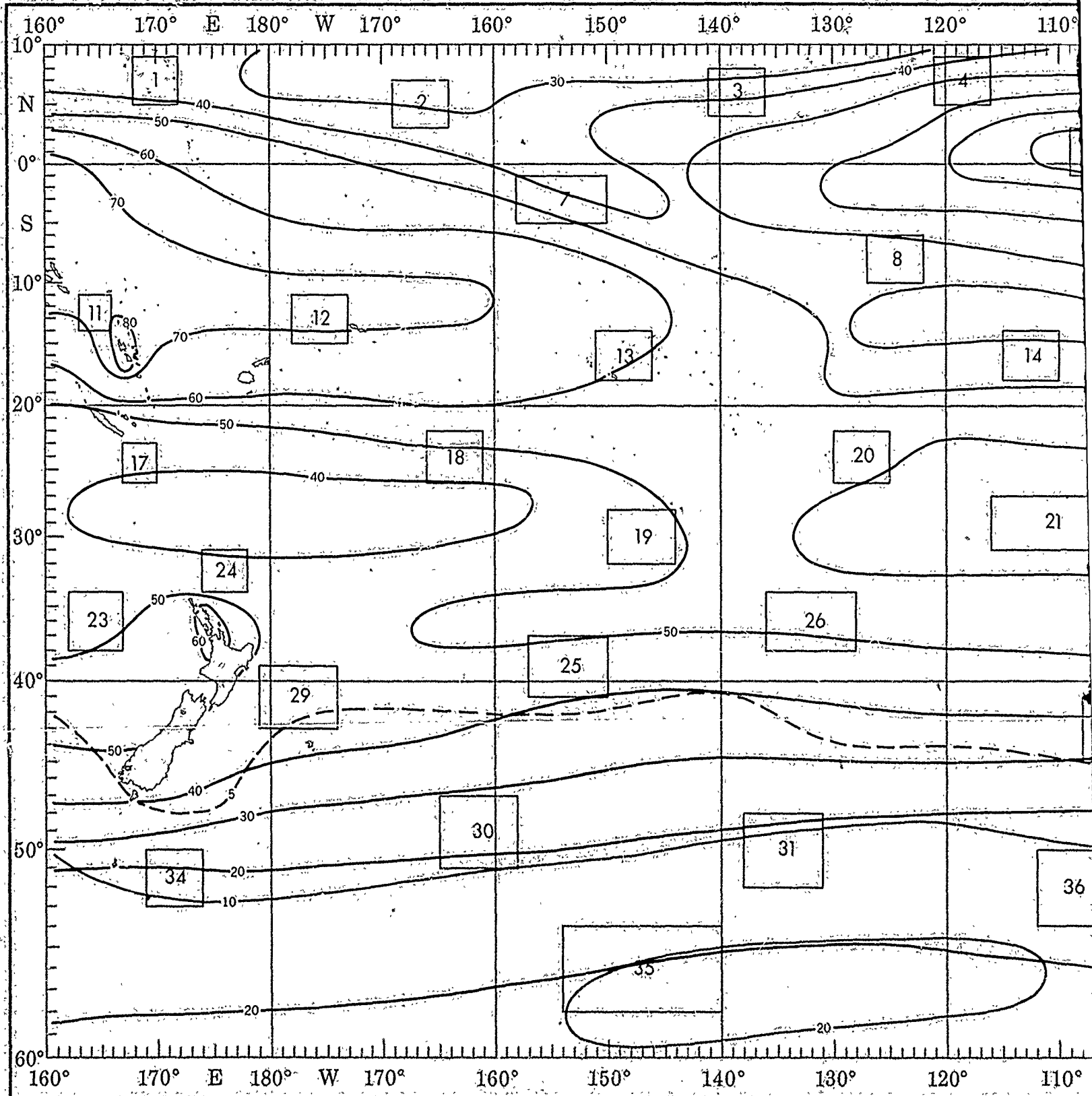
TROPICAL CYCLONE



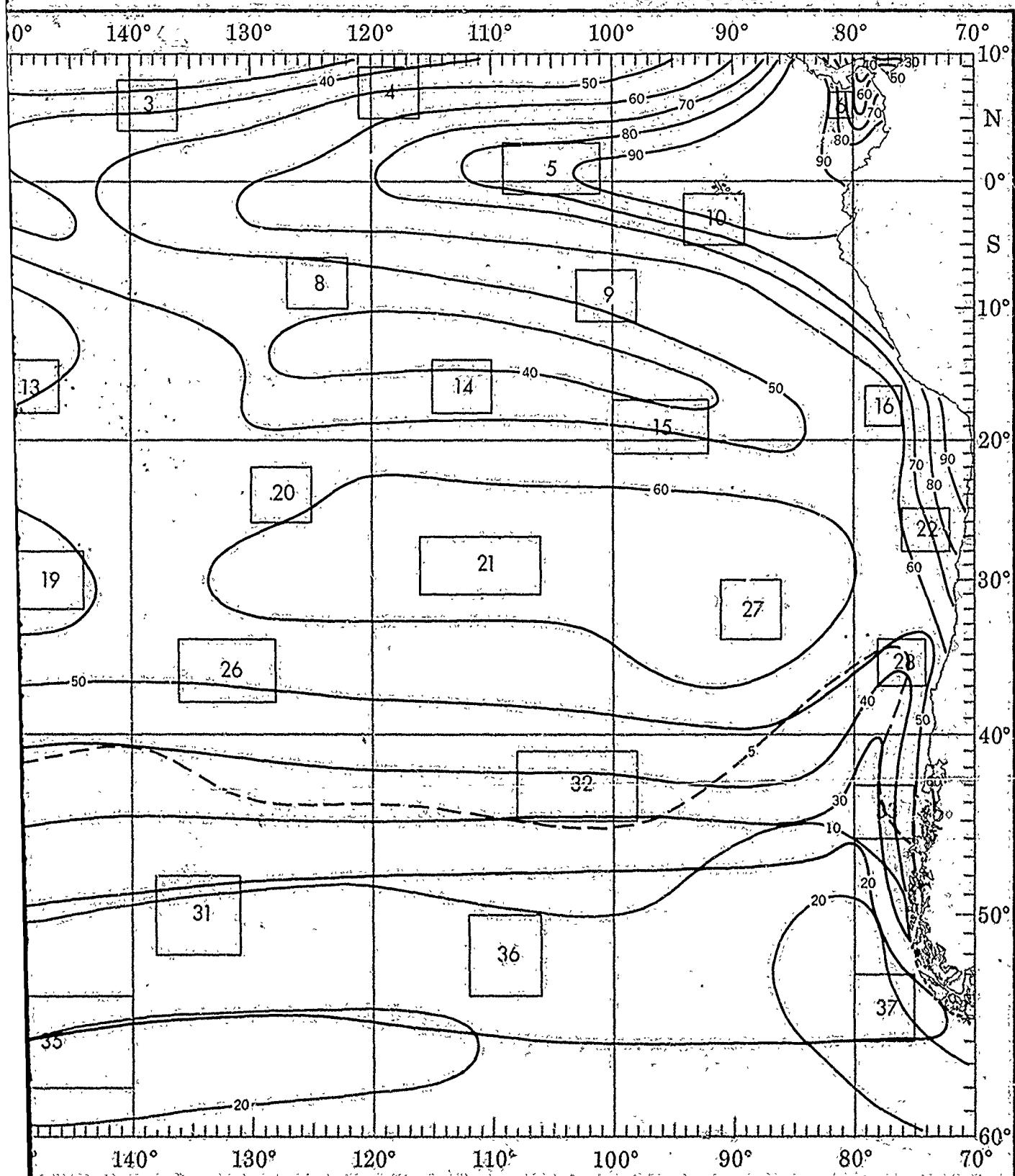
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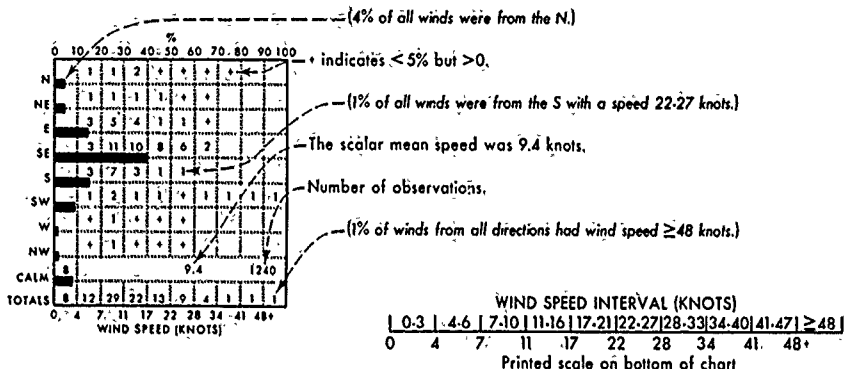


SURFACE WINDS



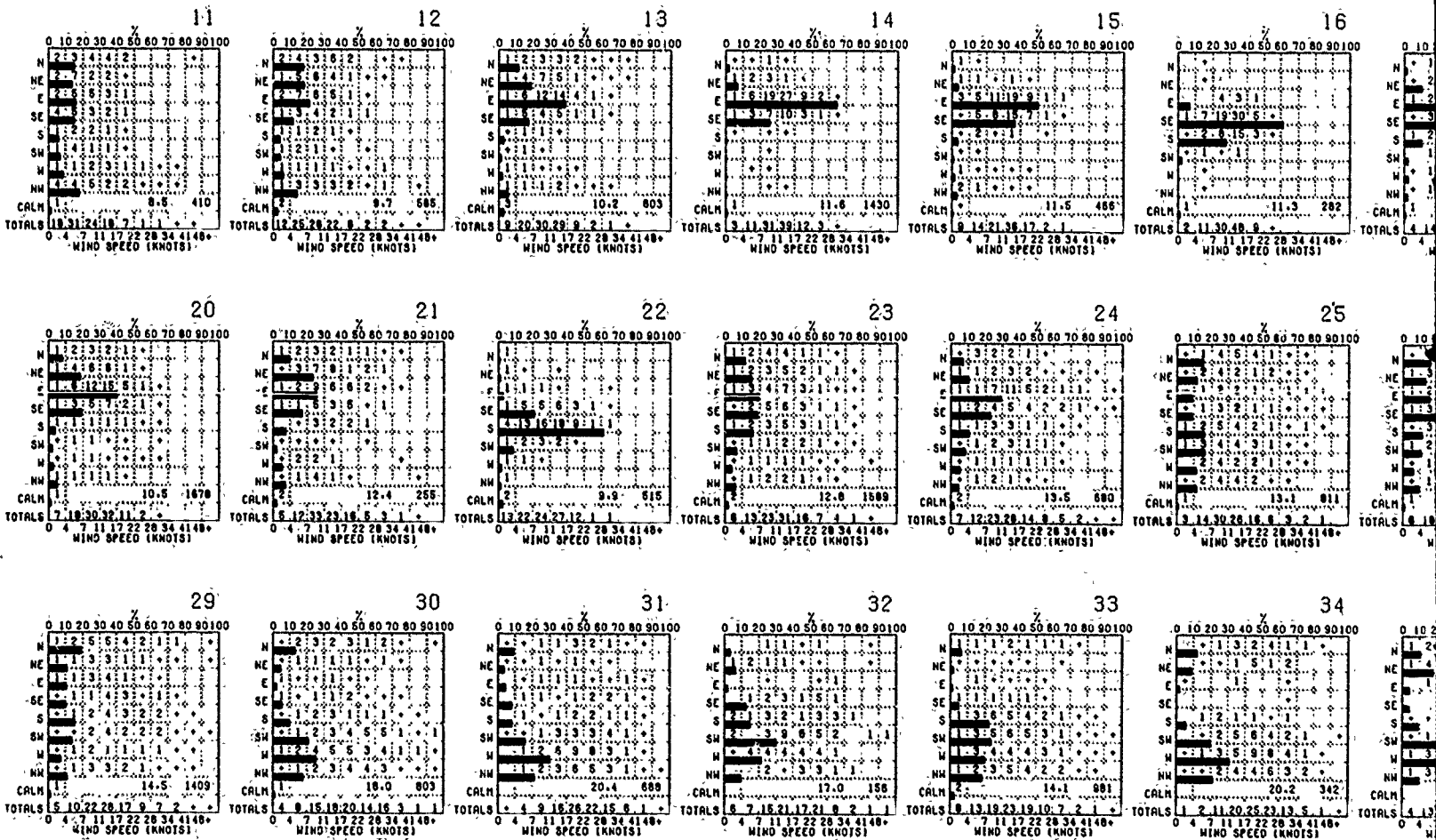
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE, - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

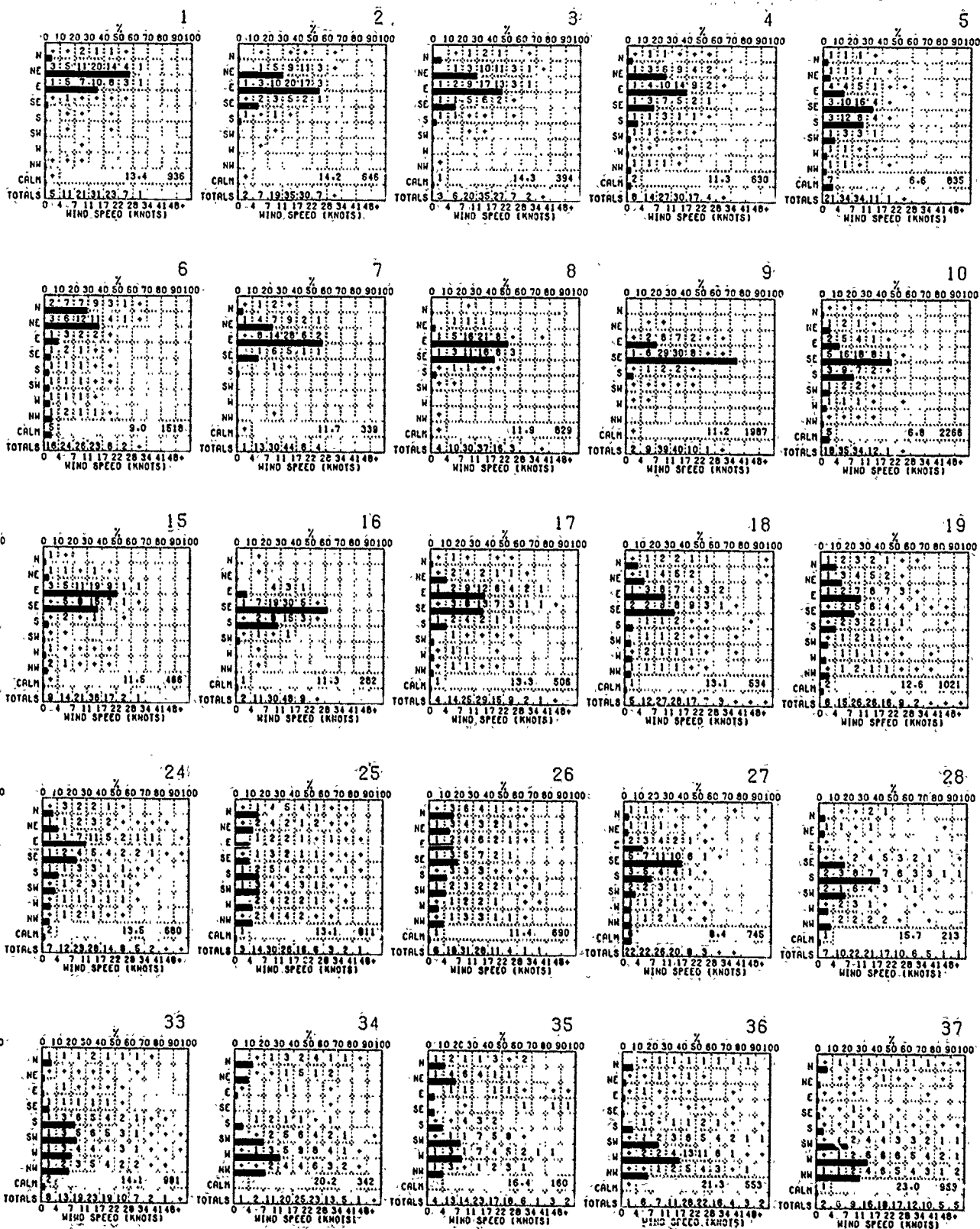


Graphs represent the objective compilation of available data for specified areas without regard to suspected bias. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias is suspected.

SPEED

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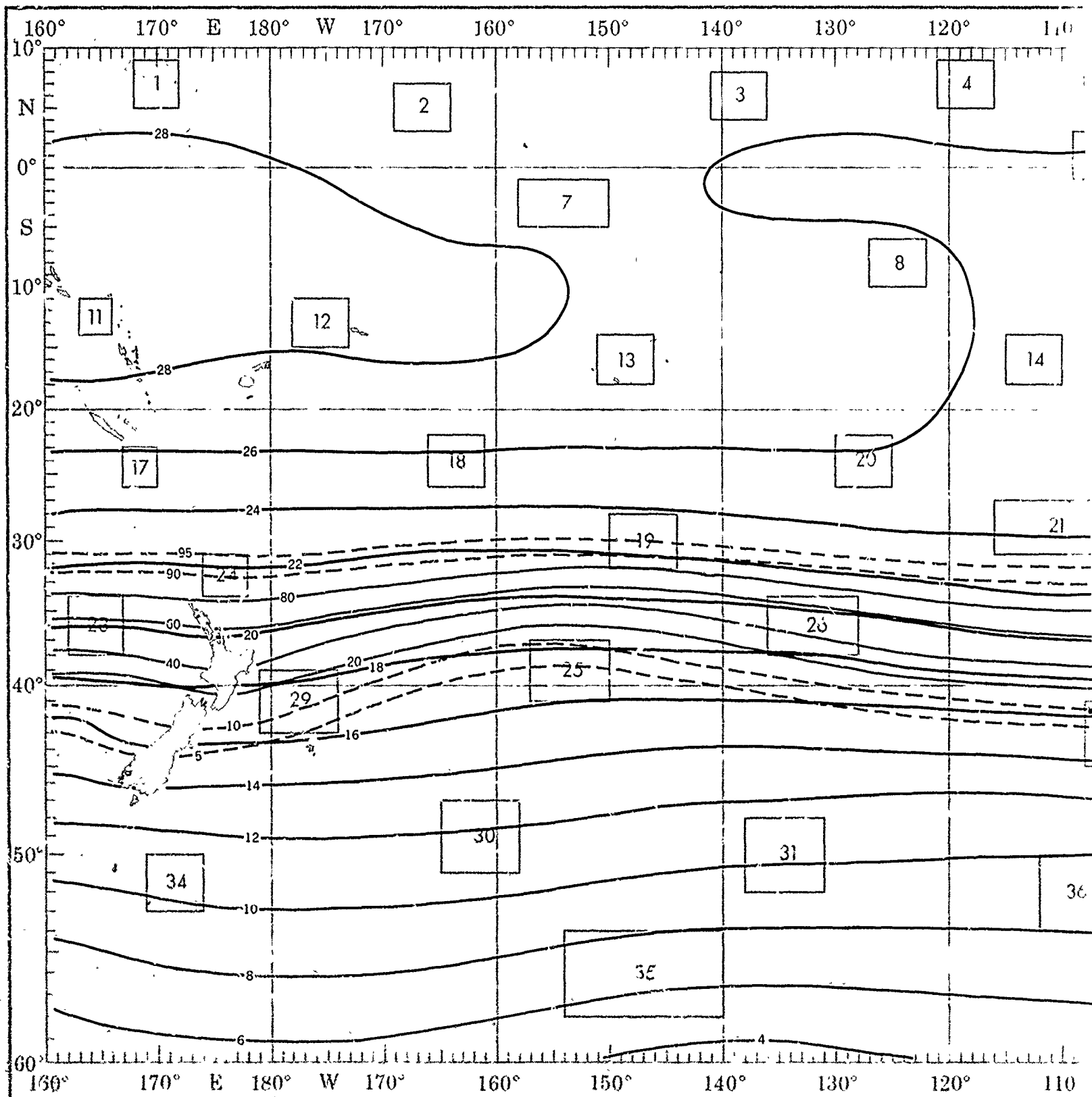
direction Speed frequency
direction.



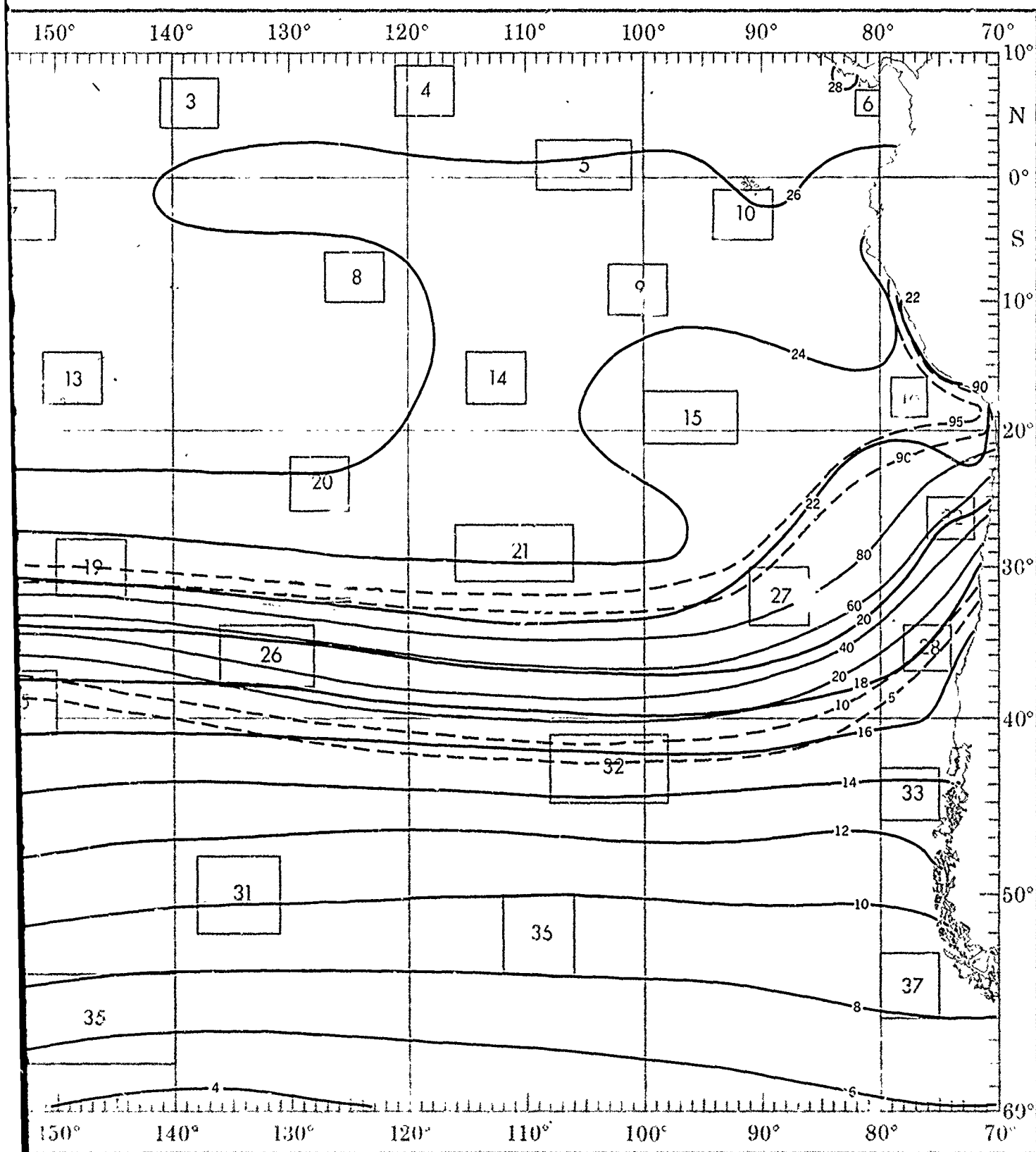
The objective compilation of available data for specified areas without regard to suspected biases.
The objective compilation of available data for specified areas without regard to suspected biases.
The objective compilation of available data for specified areas without regard to suspected biases.

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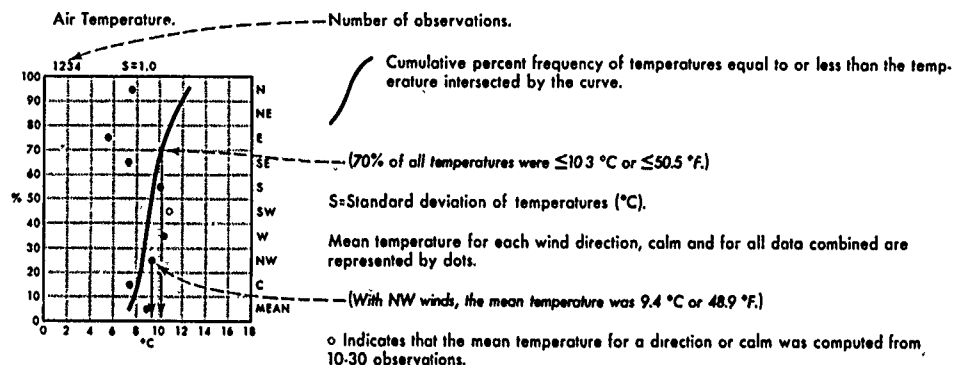
SURFA



SURFACE AIR TEMPERATURE



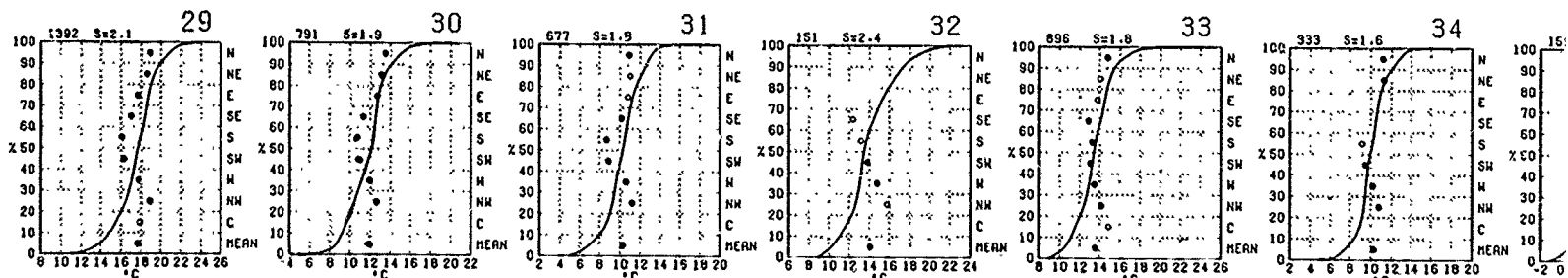
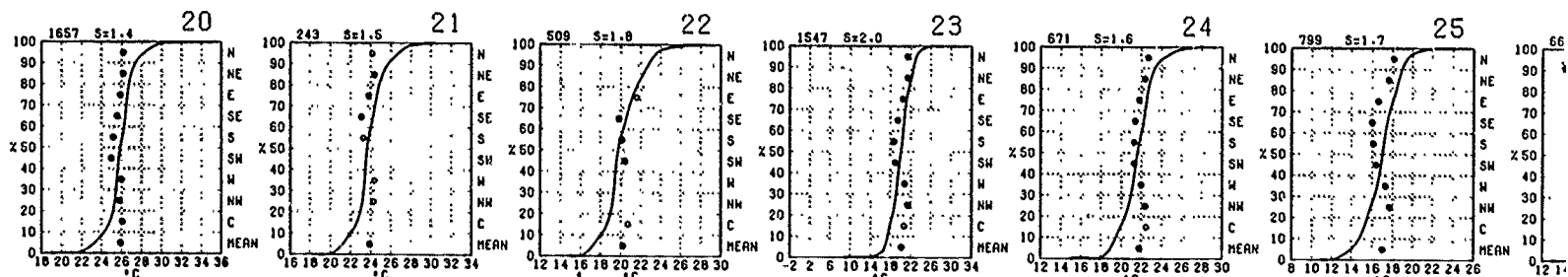
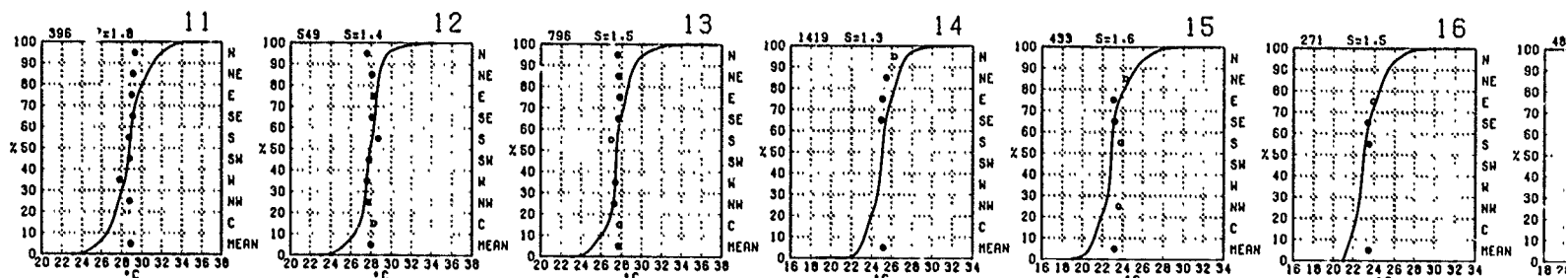
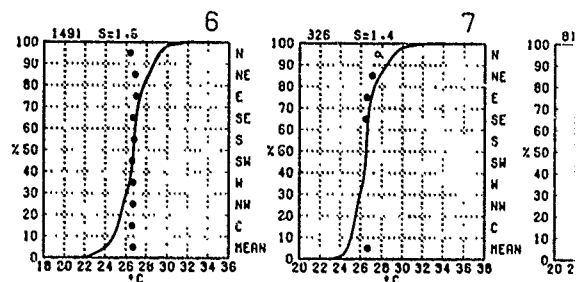
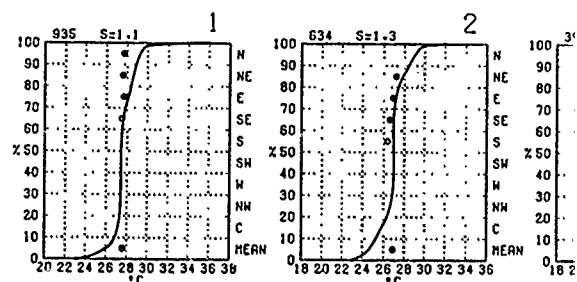
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^{\circ}\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^{\circ}\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to su
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bi

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equal to or less than the temp-

all data combined are

°F.)

calm was computed from

available.

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NE

E

SE

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SW

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NW

C

MEAN

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10

20

30

40

50

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170

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840

850

860

870

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970

980

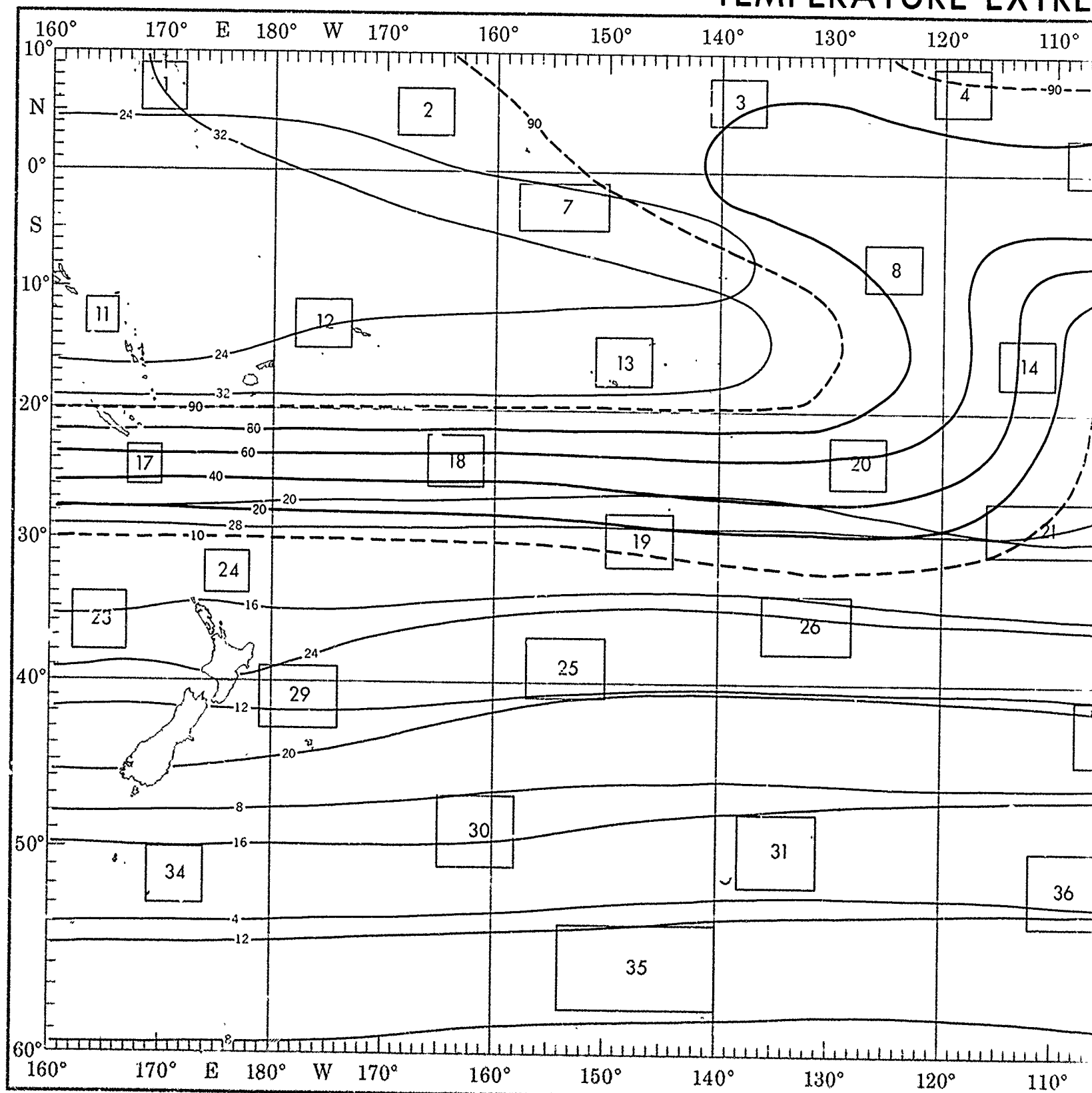
990

1000

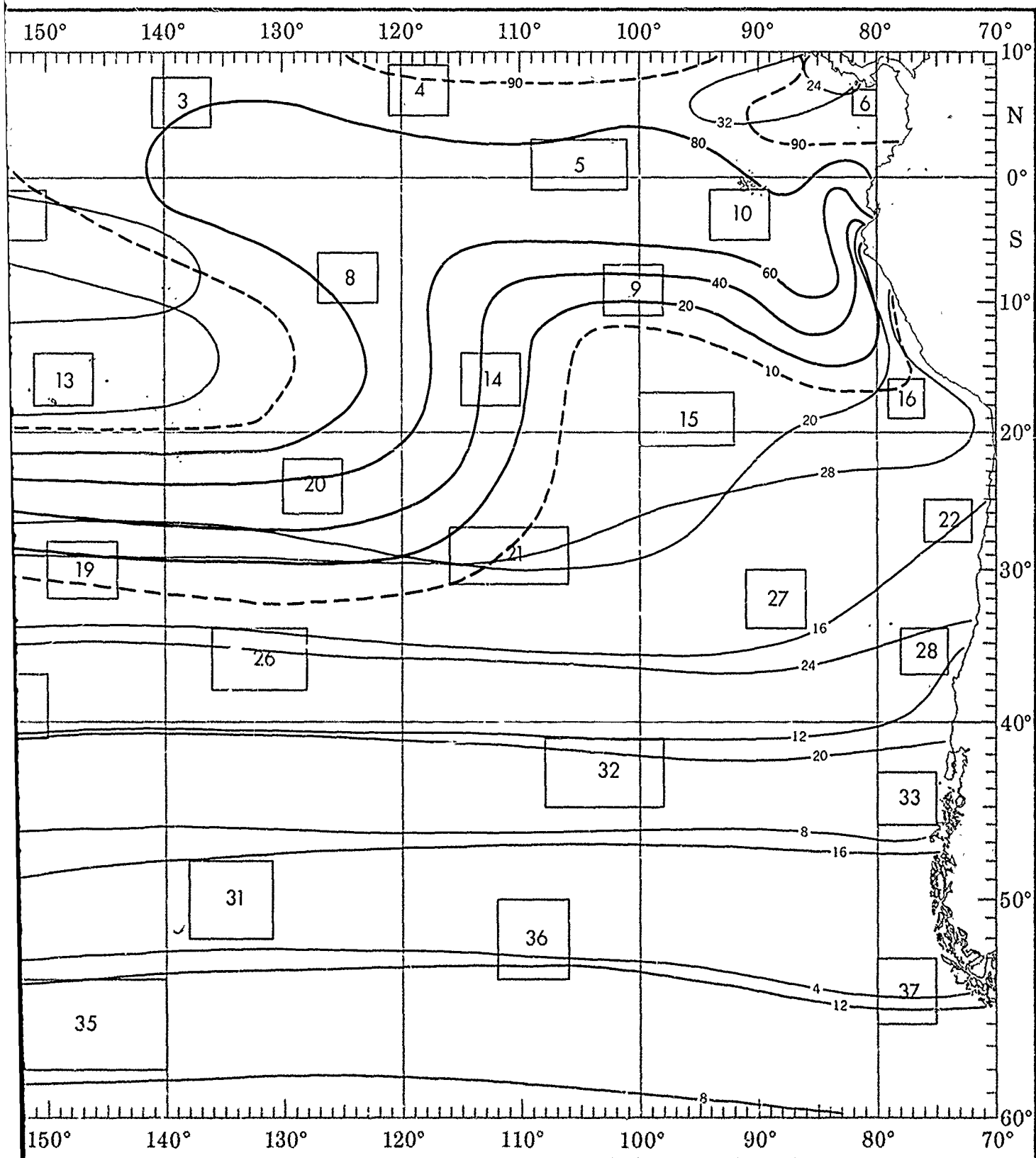
the objective compilation of available data for specified areas without regard to suspected biases.
ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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TEMPERATURE EXTRE



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature.

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.29	0	0	0	0	0
26.27	0	0	0	0	0
24.25	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0
-12.11	0	0	0	0	0
-14.13	0	0	0	0	0
-16.15	0	0	0	0	0
-18.17	0	0	0	0	0
-20.19	0	0	0	0	0
-22.21	0	0	0	0	0
-24.23	0	0	0	0	0
-26.25	0	0	0	0	0
-28.27	0	0	0	0	0
-30.29	0	0	0	0	0
-32.31	0	0	0	0	0
-34.33	0	0	0	0	0

(1% of all observations reported temperature 2.3°C simultaneously with wind speed of 22.33 kts.)

+ Indicates < 5% but > 0

Number of observations.

Use of this table in determination of Potential Superstructure Icing is explained in the text.

WIND SPEED (KTS) 1						WIND SPEED (KTS) 2						WIND SPEED (KTS) 3					
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	0	0	0	0	32.33	0	0	0	0	0	30.31	0	0	0	0	0
32.33	0	0	0	0	0	30.31	0	0	0	0	0	28.29	0	0	0	0	0
30.31	0	0	0	0	0	28.29	0	0	0	0	0	26.27	0	0	0	0	0
28.29	0	0	0	0	0	26.27	0	0	0	0	0	24.25	0	0	0	0	0
26.27	0	0	0	0	0	24.25	0	0	0	0	0	22.23	0	0	0	0	0
24.25	0	0	0	0	0	22.23	0	0	0	0	0	20.21	0	0	0	0	0
22.23	0	0	0	0	0	20.21	0	0	0	0	0	18.19	0	0	0	0	0
20.21	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0
18.19	0	0	0	0	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0
16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0
14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0
12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0
10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0
8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0
6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0
4.5	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0
2.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0
0.1	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0
-2.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0
-4.3	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0
-6.5	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0
-8.7	0	0	0	0	0	-10.9	0	0	0	0	0	-12.11	0	0	0	0	0
-10.9	0	0	0	0	0	-12.11	0	0	0	0	0	-14.13	0	0	0	0	0
-12.11	0	0	0	0	0	-14.13	0	0	0	0	0	-16.15	0	0	0	0	0
-14.13	0	0	0	0	0	-16.15	0	0	0	0	0	-18.17	0	0	0	0	0
-16.15	0	0	0	0	0	-18.17	0	0	0	0	0	-20.19	0	0	0	0	0
-18.17	0	0	0	0	0	-20.19	0	0	0	0	0	-22.21	0	0	0	0	0
-20.19	0	0	0	0	0	-22.21	0	0	0	0	0	-24.23	0	0	0	0	0
-22.21	0	0	0	0	0	-24.23	0	0	0	0	0	-26.25	0	0	0	0	0
-24.23	0	0	0	0	0	-26.25	0	0	0	0	0	-28.27	0	0	0	0	0
-26.25	0	0	0	0	0	-28.27	0	0	0	0	0	-30.29	0	0	0	0	0
-28.27	0	0	0	0	0	-30.29	0	0	0	0	0	-32.31	0	0	0	0	0
-30.29	0	0	0	0	0	-32.31	0	0	0	0	0	-34.33	0	0	0	0	0
-32.31	0	0	0	0	0	-34.33	0	0	0	0	0						
-34.33	0	0	0	0	0												

BLACK LINE - Percent frequency of TH index ≥ 24°C (75°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11						WIND SPEED (KTS) 12						WIND SPEED (KTS) 13						WIND SPEED (KTS) 14						WIND SPEED (KTS) 15						WIND SPEED (KTS) 16													
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34								
34.35	0	1	0	0	0	32.33	+	1	+	0	0	30.31	0	+	0	0	0	28.29	1	+	1	0	0	26.27	0	+	1	0	0	24.25	+	1	1	0	0	22.23	+	1	1	0	0		
32.33	2	6	+	0	0	30.31	1	4	2	+	0	28.29	1	1	+	0	0	26.27	0	4	3	+	0	24.25	0	4	3	+	0	22.23	0	3	4	0	0	20.21	0	3	4	0	0		
30.31	6	13	5	0	0	28.29	8	30	17	2	0	26.27	5	22	15	1	0	24.25	+	2	2	0	0	22.23	4	9	15	4	0	20.21	1	13	23	+	0	18.19	1	21	27	0	0		
28.29	9	26	13	1	+	26.27	3	15	10	2	+	24.25	3	20	18	2	+	22.23	2	14	19	1	0	20.21	+	6	3	+	0	18.19	0	+	0	0	0	16.17	0	+	0	0	0		
26.27	1	10	6	1	0	24.25	0	2	2	1	0	22.23	0	+	1	2	0	0	20.21	1	23	26	1	0	18.19	0	+	4	4	1	0	16.17	0	+	0	0	0	14.15	0	+	0	0	0
24.25	0	1	2	0	0	20.21	0	0	0	0	0	18.19	0	+	0	0	0	16.17	0	+	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0		
22.23	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0		
20.21	0	0	0	0	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0		
18.19	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0		
16.17	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0		
14.15	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0		
12.13	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0		
10.11	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0		
8.9	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0		
6.7	0	0	0	0	0	2.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0		
4.5	0	0	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0		
2.3	0	0	0	0	0	-2.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0	-13.1	0	0	0	0	0		
0.1	0	0	0	0	0	-4.3	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0	-13.1	0	0	0	0	0	-15.3	0	0	0	0	0		
-2.1	0	0	0	0	0	-6.5	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0	-13.1	0	0	0	0	0	-15.3	0	0	0	0	0	-17.5	0	0	0	0	0		
-4.3	0	0	0	0	0	-8.7	0	0	0	0	0	-10.9	0	0	0	0	0	-13.1	0	0	0	0	0	-15.3	0	0	0	0	0	-17.5	0	0	0	0	0	-19.7	0	0	0	0	0		
-6.5	0	0	0	0	0	-10.9	0	0	0	0	0	-13.1	0	0	0	0	0	-15.3	0	0	0	0	0	-17.5	0	0	0	0	0	-19.7	0	0	0	0	0	-21.9	0	0	0	0	0		
-8.7	0	0	0	0	0	-13.1	0	0	0	0	0	-15.3	0	0	0	0	0	-17.5	0	0	0	0	0	-19.7	0	0	0	0	0	-21.9	0	0	0	0	0	-24.1	0	0	0	0	0		
-10.9	0	0	0	0	0	-15.3	0	0	0	0	0	-17.5	0	0	0	0	0	-19.7	0	0	0	0	0	-21.9	0	0	0	0	0	-24.1	0	0	0	0	0	-26.3	0	0	0	0	0		
-13.1	0	0	0	0	0	-17.5	0	0	0	0	0	-19.7	0	0	0	0	0	-21.9	0	0	0	0	0	-24.1	0	0	0	0	0	-26.3	0	0	0	0	0	-28.5	0	0	0	0	0		
-15.3	0	0	0	0	0	-19.7	0	0	0	0	0	-21.9	0	0	0	0	0	-24.1	0	0	0	0	0	-26.3	0	0	0	0	0	-28.5	0	0	0	0	0	-30.7	0	0	0	0	0		
-17.5	0	0	0	0	0	-21.9	0	0	0	0	0	-24.1	0	0	0	0	0	-26.3	0	0	0	0	0	-28.5	0	0	0	0	0	-30.7	0	0	0	0	0	-32.9	0	0	0	0	0		
-19.7	0	0	0	0	0	-24.1	0	0	0	0	0	-26.3	0	0	0	0	0	-28.5	0	0	0	0	0	-30.7	0	0	0	0	0	-32.9	0	0	0	0	0	-35.1	0	0	0	0	0		
-21.9	0	0	0	0	0	-26.3	0	0	0	0	0	-28.5	0	0	0	0	0	-30.7	0	0	0	0	0	-32.9	0	0	0	0	0	-35.1	0	0	0	0	0	-37.3	0	0	0	0	0		
-24.1	0	0	0	0	0	-28.5	0	0	0	0	0	-30.7	0	0	0	0	0	-32.9	0	0	0	0	0	-35.1	0	0	0	0	0	-37.3	0	0	0	0	0	-39.5	0	0	0	0	0		
-26.3	0	0	0	0	0	-30.7	0	0	0	0	0	-32.9	0	0	0	0	0	-35.1	0	0	0	0	0	-37.3	0	0	0	0	0	-39.5	0	0	0	0	0	-41.7	0	0	0	0	0		
-28.5	0	0	0	0	0	-32.9	0	0	0	0	0	-35.1	0	0	0	0	0	-37.3	0	0	0	0	0	-39.5	0	0	0	0	0	-41.7	0	0	0	0	0	-43.9	0	0	0	0	0		
-30.7	0	0	0	0	0	-35.1	0	0	0	0	0	-37.3	0	0	0	0	0	-39.5	0	0	0	0	0	-41.7	0	0	0	0	0	-43.9	0	0	0	0	0	-46.1	0	0	0	0	0		
-32.9	0	0	0	0	0	-37.3	0	0	0	0	0	-39.5	0	0	0	0	0	-41.7	0	0	0	0	0	-43.9	0	0	0	0	0	-46.1	0	0	0	0	0	-48.3	0	0	0	0	0		
-35.1	0	0	0	0	0	-39.5	0	0	0	0	0	-41.7	0	0	0	0	0	-43.9	0	0	0	0	0	-46.1	0	0	0	0	0	-48.3	0	0	0	0	0	-50.5	0	0	0	0	0		
-37.3	0	0	0	0	0	-41.7	0	0	0	0	0	-43.9	0	0	0	0	0	-46.1	0	0	0	0	0	-48.3	0	0	0	0	0	-50.5	0	0	0	0	0	-52.7	0	0	0	0	0		
-39.5	0	0	0	0	0	-43.9	0	0	0	0	0	-46.1	0	0	0	0	0	-48.3	0	0	0	0	0	-50.5	0	0	0	0	0	-52.7	0	0	0	0	0	-54.9	0	0	0	0	0		
-41.7	0	0	0	0	0	-46.1	0	0	0	0	0	-48.3	0	0	0	0	0	-50.5	0	0	0	0	0	-52.7	0	0	0	0	0	-54.9	0	0	0	0	0	-57.1	0	0	0	0	0		
-43.9	0	0	0	0	0	-48.3	0	0	0	0	0	-50.5	0	0	0	0	0	-52.7	0	0	0	0	0	-54.9	0	0	0	0	0	-57.1	0	0	0	0	0	-59.3	0	0	0	0	0		
-46.1	0	0	0	0	0	-50.5	0	0	0	0	0	-52.7	0	0	0	0	0	-54.9	0	0	0	0	0	-57.1	0	0	0	0	0	-59.3	0	0	0	0	0	-61.5	0	0	0	0	0		
-48.3	0	0	0	0	0	-52.7	0	0	0	0	0	-54.9	0	0	0	0	0	-57.1	0	0	0	0	0	-59.3	0	0	0	0	0	-61.5	0	0	0	0	0	-63.7	0	0	0	0	0		
-50.5	0	0	0	0	0	-54.9	0	0	0	0	0	-57.1	0	0	0	0	0	-59.3	0	0	0	0	0	-61.5	0	0	0	0	0	-63.7	0	0	0	0	0	-65.9	0	0	0	0	0		
-52.7	0	0	0	0	0	-57.1	0	0	0	0	0	-59.3	0	0	0	0	0	-61.5	0	0	0	0	0	-63.7	0	0	0	0	0	-65.9	0	0	0	0	0	-68.1	0	0	0	0	0		
-54.9	0	0	0	0	0	-59.3	0	0	0	0	0	-61.5	0	0	0	0	0	-63.7	0	0	0	0	0	-65.9	0	0	0	0	0	-68.1	0	0	0	0	0	-70.3	0	0	0	0	0		
-57.1	0																																										

TEMPERATURE

FEBRUARY

re (°C) and wind speed

nd speed of 22-33 kts.)

explained in the text.

due to heat)

s than the given value)

the given value)

3

2

1

the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

WIND SPEED (KTS) 1												
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	0	+	0	0	0	32.33	0	+	0	0	0	
32.33	0	+	0	0	0	30.31	0	+	1	+	0	
30.31	+	1	1	+	0	28.29	+	7	18	3	0	
28.29	2	14	27	6	0	26.27	1	16	41	3	0	
26.27	2	15	25	3	0	24.25	+	2	5	1	0	
24.25	+	1	1	0	0	22.23	0	0	+	0	0	
22.23	0	+	0	0	0	20.21	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	

935

637

394

623

817

WIND SPEED (KTS) 6												
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	0	+	0	0	0	32.33	0	1	+	0	0	
32.33	0	+	0	0	0	30.31	0	2	+	0	0	
30.31	1	2	1	0	0	28.29	1	11	11	+	0	
28.29	4	13	6	+	0	26.27	1	22	34	3	0	
26.27	12	26	17	2	0	24.25	0	7	0	0	0	
24.25	2	6	5	+	0	22.23	0	1	0	0	0	
22.23	+	1	1	0	0	20.21	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	

1551

326

814

1971

2340

WIND SPEED (KTS) 14												
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	0	+	0	0	0	32.33	0	+	0	0	0	
32.33	0	+	0	0	0	30.31	0	+	0	0	0	
30.31	0	+	0	0	0	28.29	+	2	7	0	0	
28.29	2	14	19	1	0	26.27	1	23	26	1	0	
26.27	1	23	26	1	0	24.25	+	4	4	1	0	
24.25	+	4	4	1	0	22.23	0	+	0	0	0	
22.23	0	+	0	0	0	20.21	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	

1423

433

271

491

531

1033

WIND SPEED (KTS) 23												
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	0	+	0	0	0	32.33	0	+	0	0	0	
32.33	0	+	0	0	0	30.31	0	+	0	0	0	
30.31	0	+	0	0	0	28.29	+	2	7	0	0	
28.29	2	9	11	2	+	26.27	1	13	16	3	+	
26.27	1	13	16	3	+	24.25	1	11	12	4	+	
24.25	1	11	12	4	+	22.23	0	+	0	0	0	
22.23	0	+	0	0	0	20.21	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	

1558

678

806

675

728

204

WIND SPEED (KTS) 32												
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	0	+	0	0	0	32.33	0	+	0	0	0	
32.33	0	+	0	0	0	30.31	0	+	0	0	0	
30.31	0	+	0	0	0	28.29	+	2	7	0	0	
28.29	2	9	11	2	+	26.27	1	13	16	3	+	
26.27	1	13	16	3	+	24.25	1	11	12	4	+	
24.25	1	11	12	4	+	22.23	0	+	0	0	0	
22.23	0	+	0	0	0	20.21	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	

160

896

333

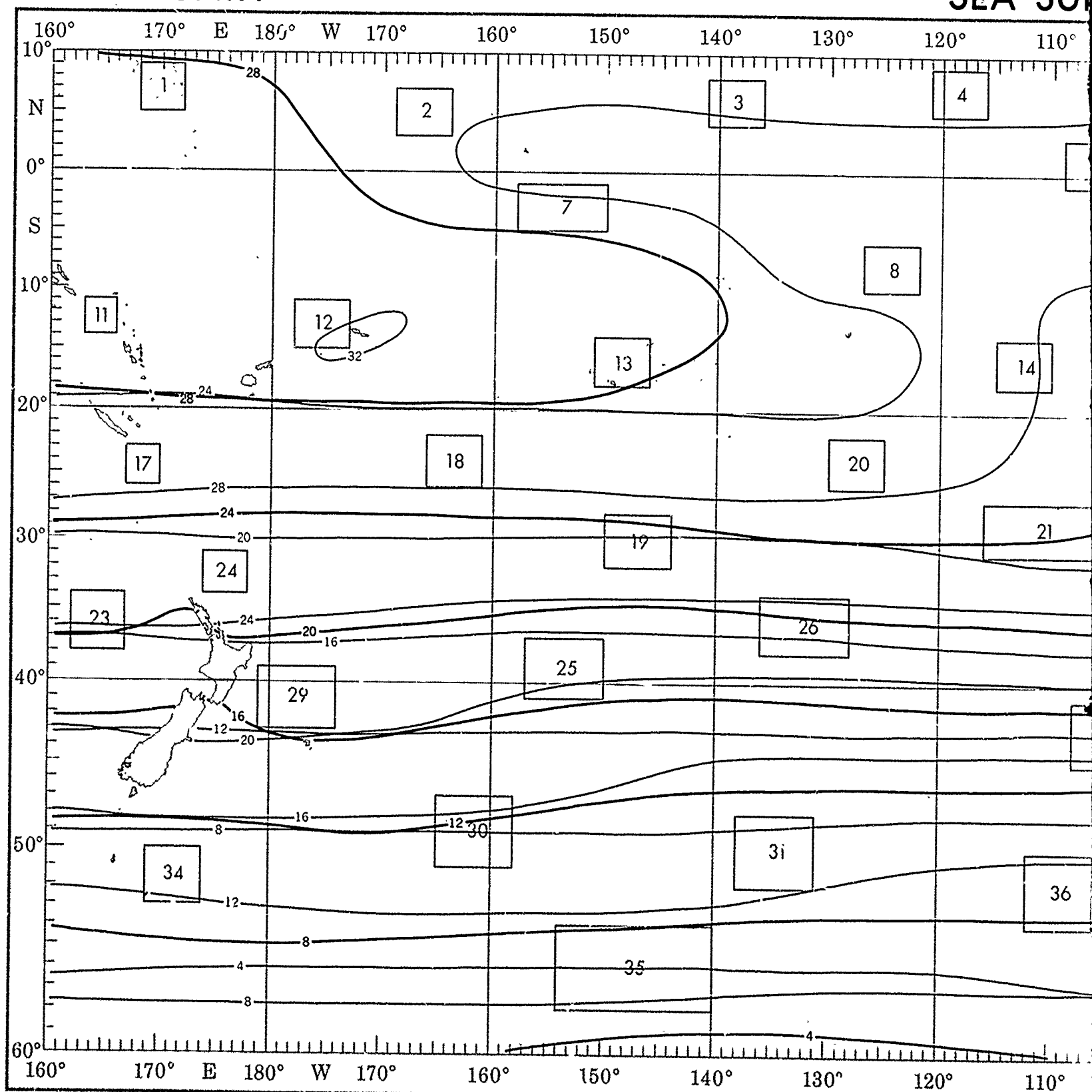
159

548

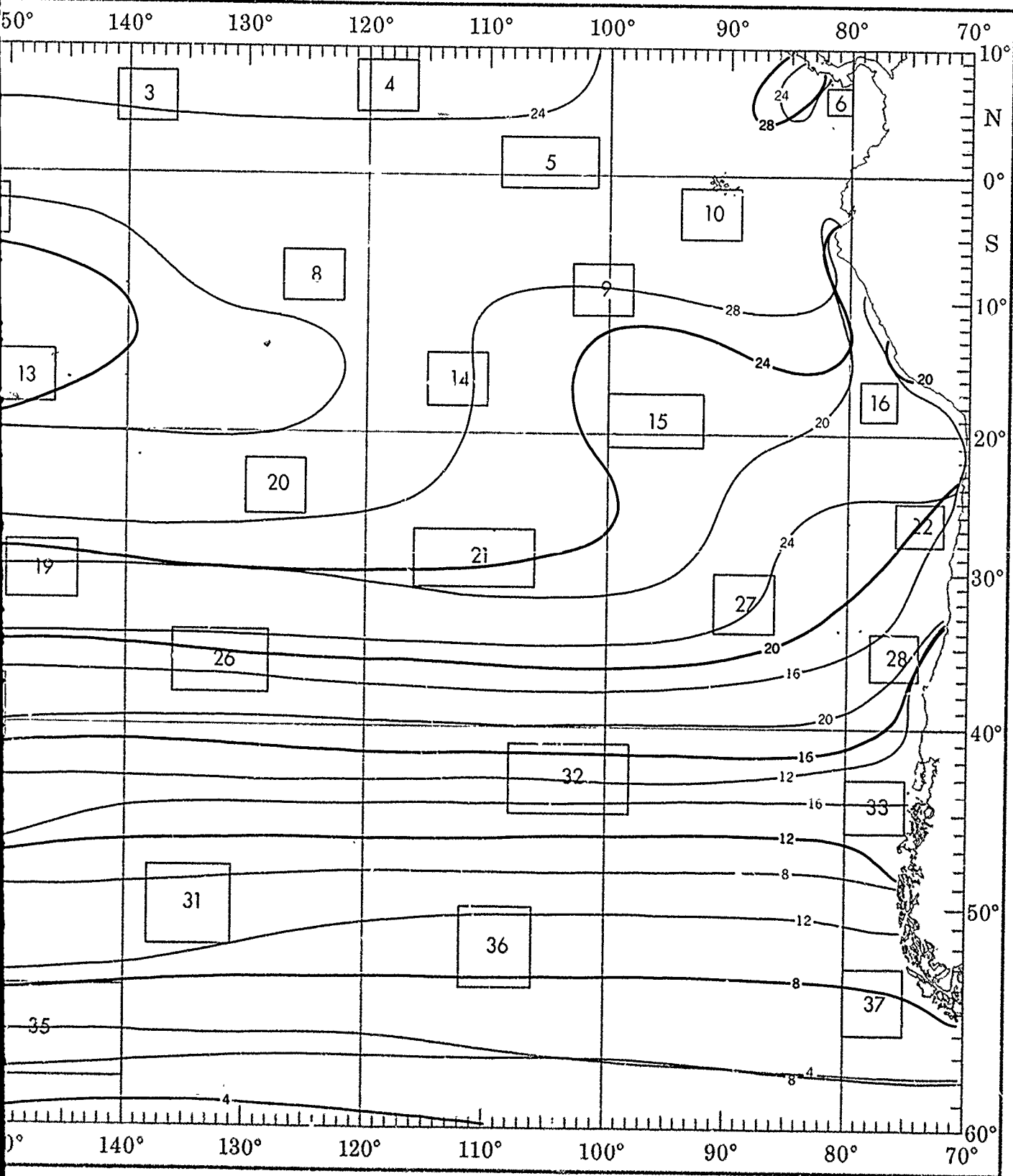
929

FEBRUARY

SEA SUR



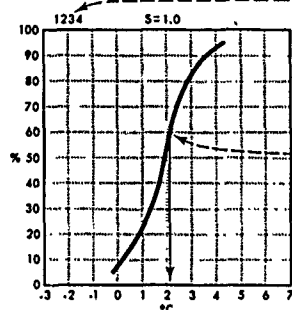
SEA SURFACE TEMPERATURE



SEA SURFACE TEMPERATURE

Sea surface temperature.

Number of observations.



Cumulative percent frequency of sea surface temperatures equal to or less than the temperature intersected by the curve.

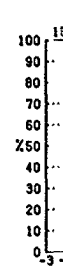
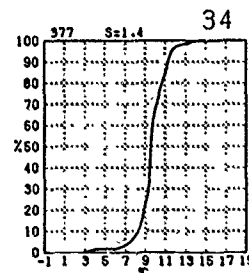
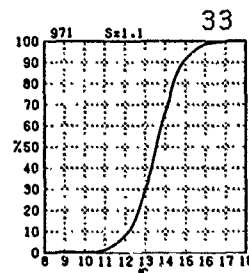
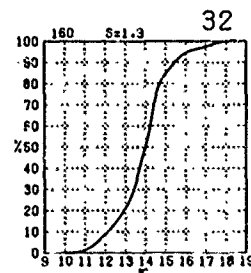
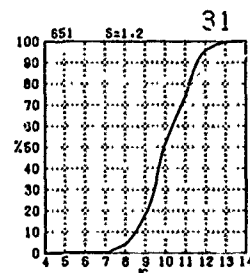
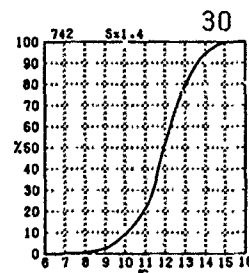
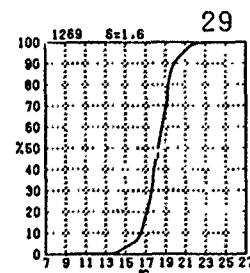
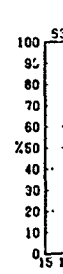
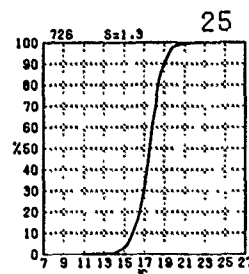
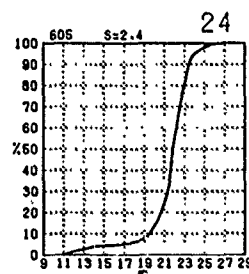
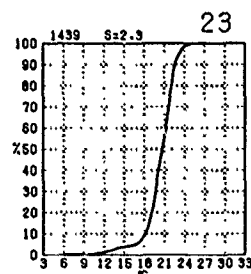
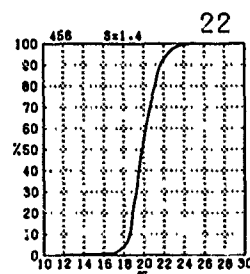
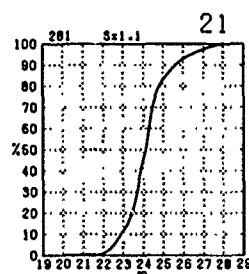
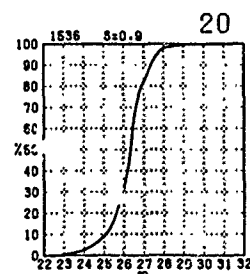
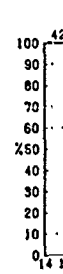
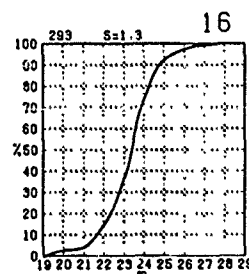
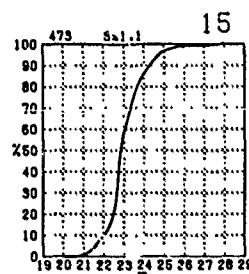
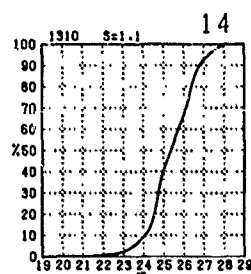
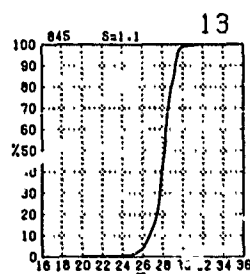
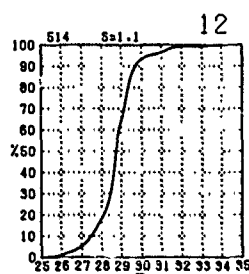
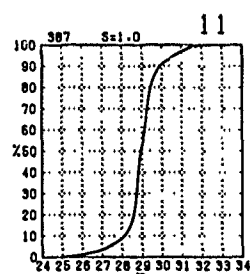
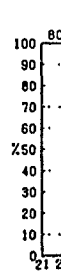
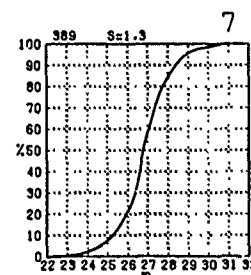
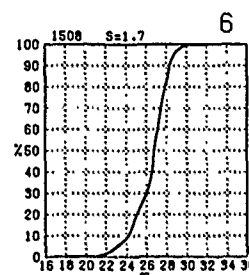
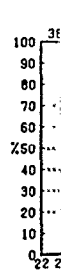
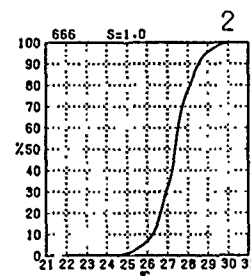
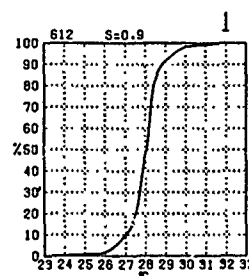
(60% of all observed sea surface temperatures were $\leq 2.1^{\circ}\text{C}$ or $\leq 35.8^{\circ}\text{F}$.)

S=Standard deviation of sea surface temperatures ($^{\circ}\text{C}$).

BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

RATURE

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temperatures equal to or less
ve.

2.1°C or ≤35.8°F.)

C)

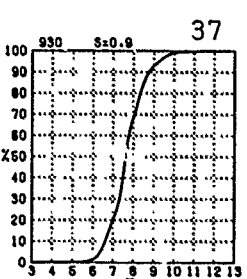
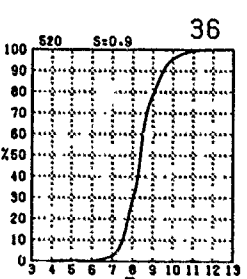
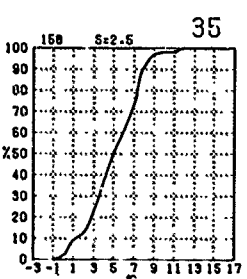
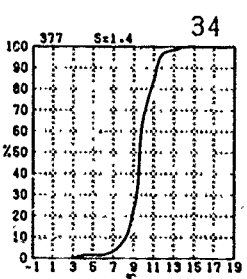
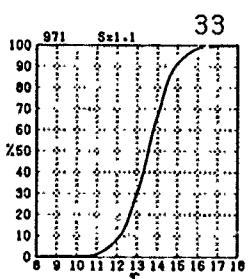
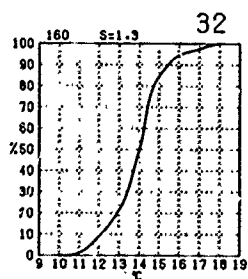
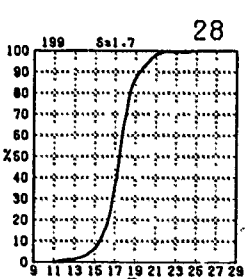
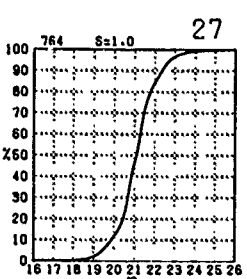
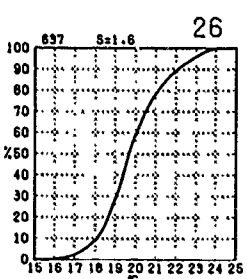
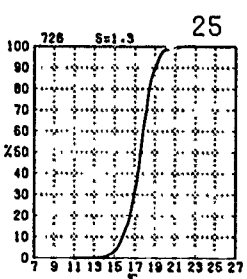
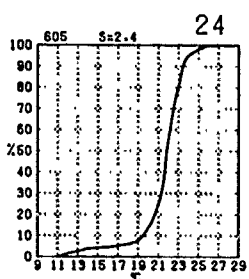
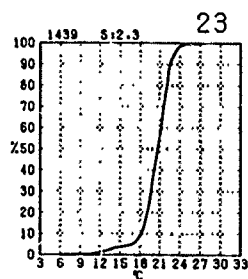
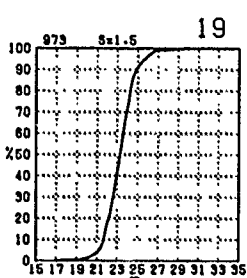
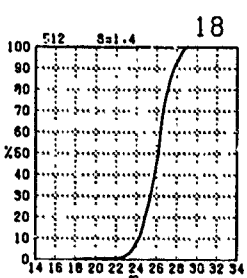
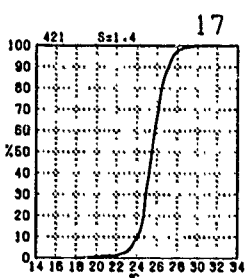
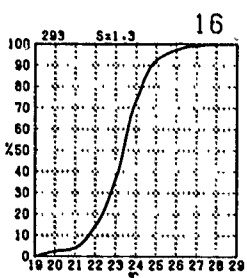
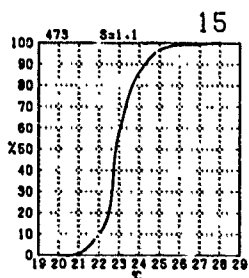
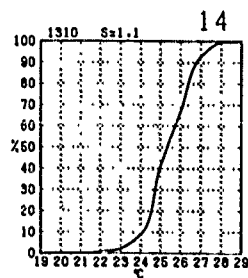
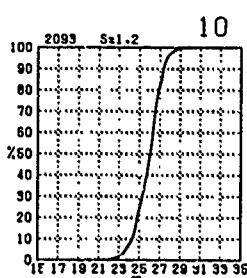
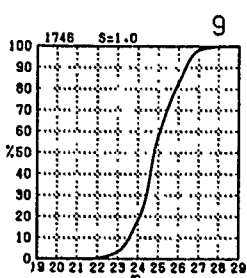
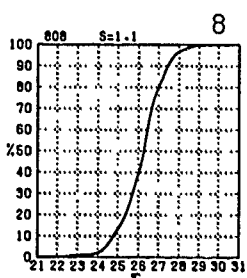
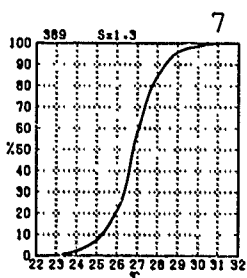
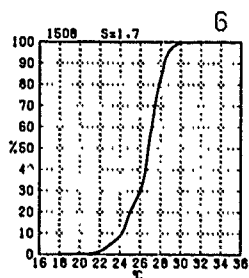
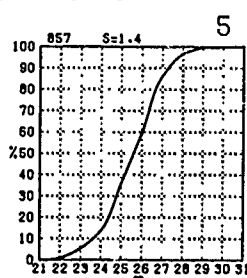
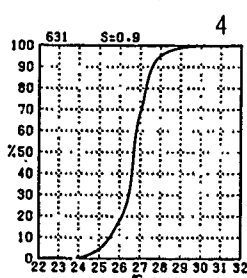
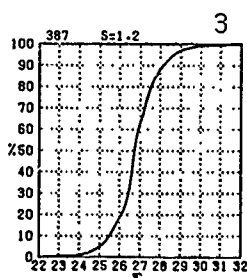
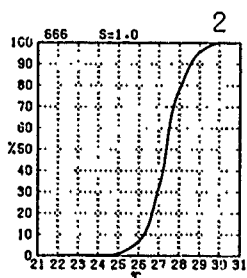
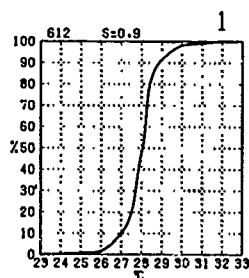
al to or less than the given

reater than the given value)

13

22

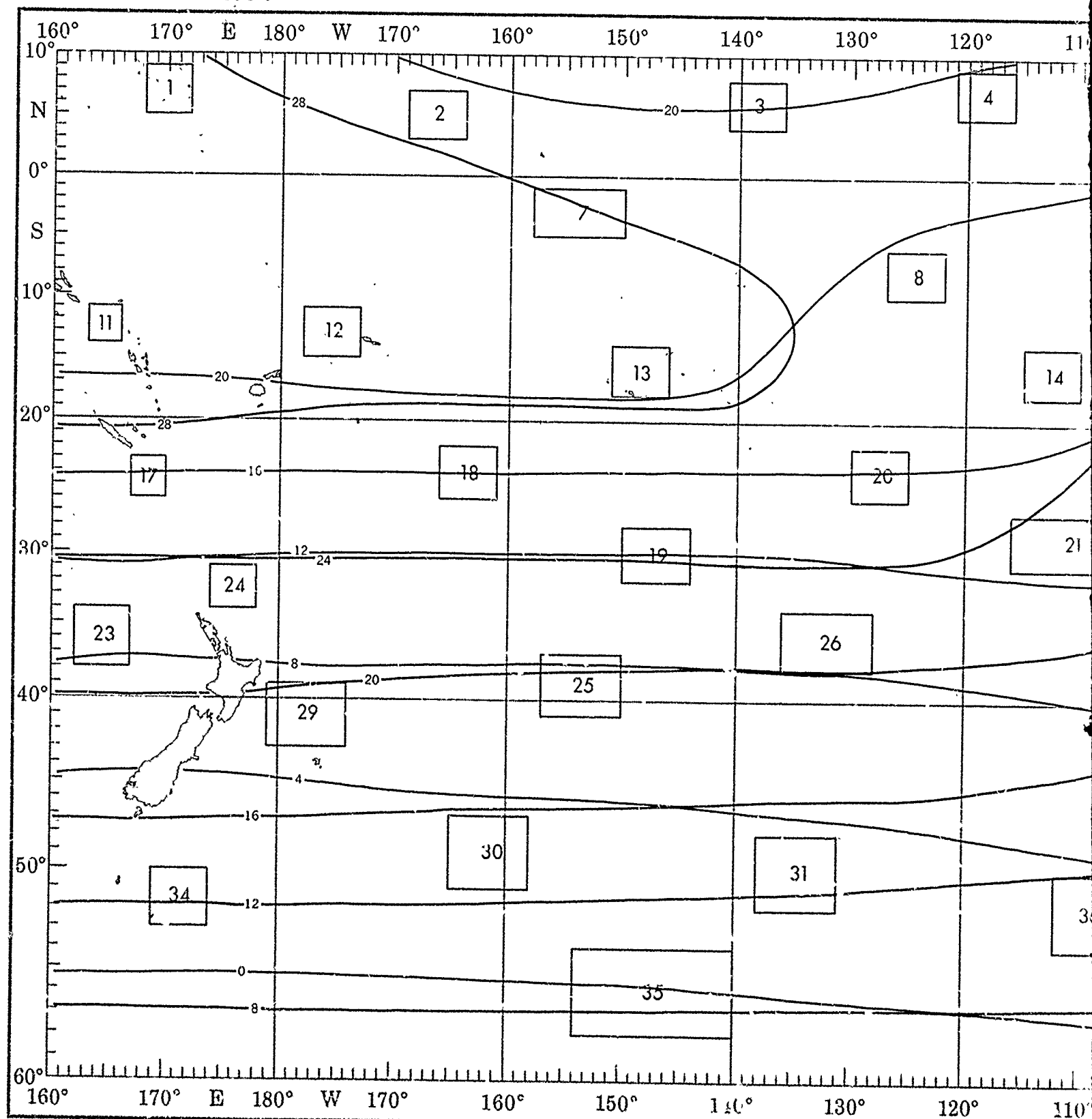
31



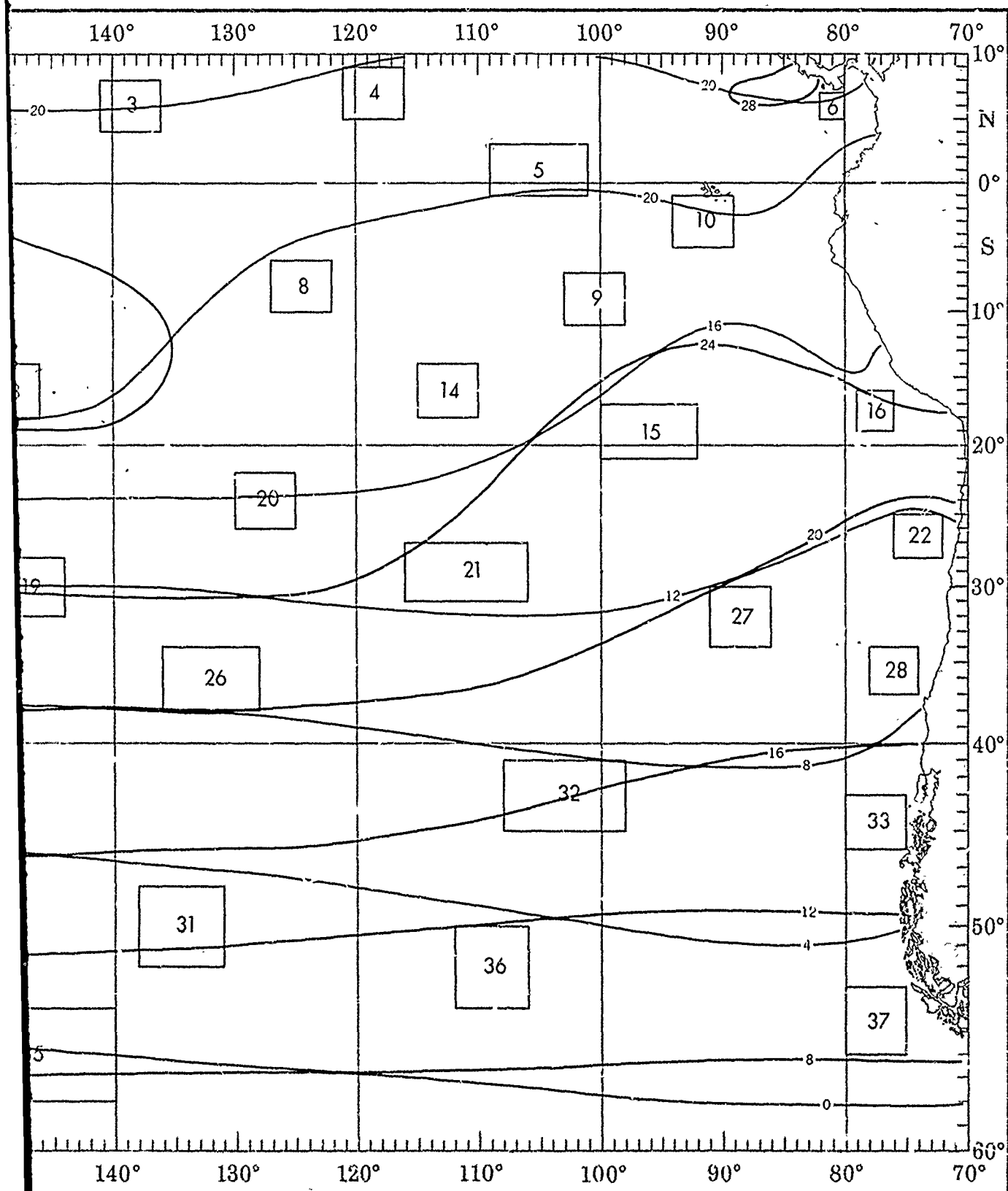
the objective compilation of available data for specified areas without regard to suspected biases.

Analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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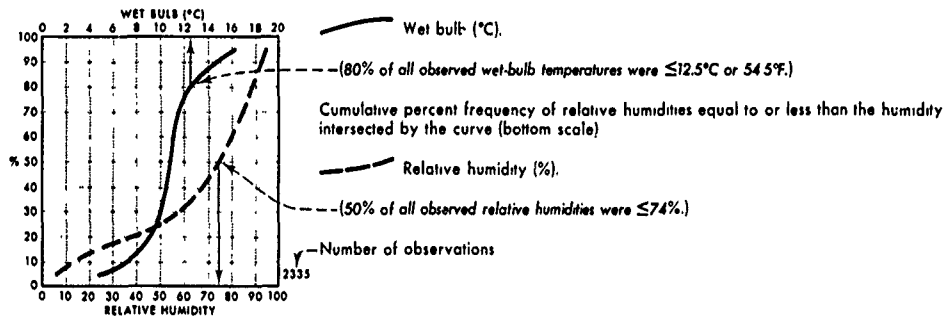
HUMIDITY



WET BULB AND RELATIVE HUMIDITY

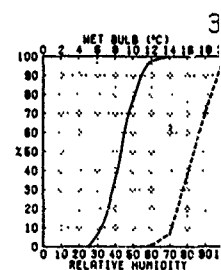
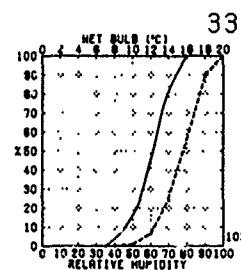
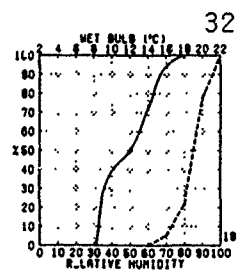
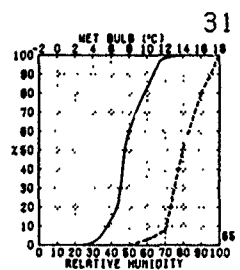
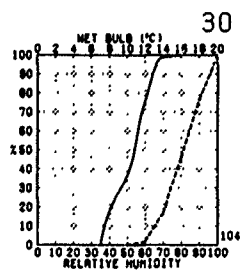
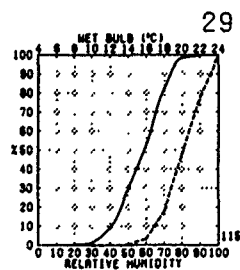
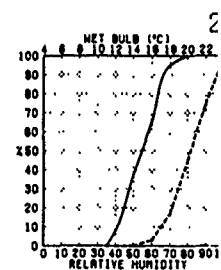
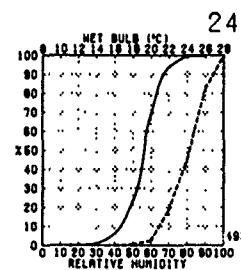
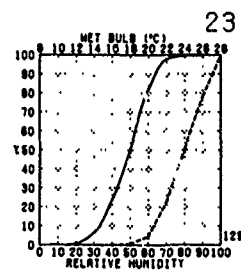
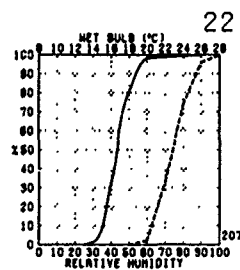
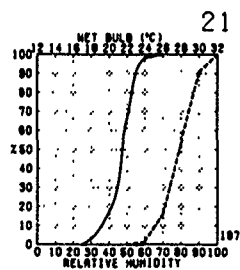
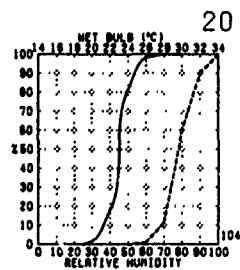
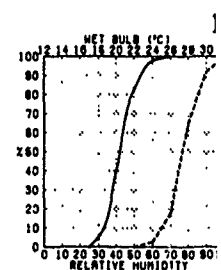
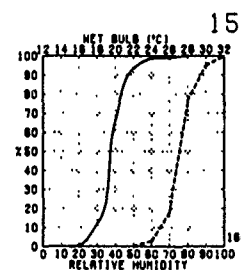
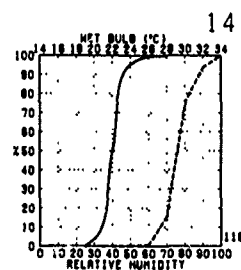
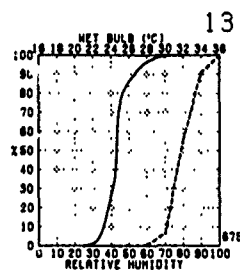
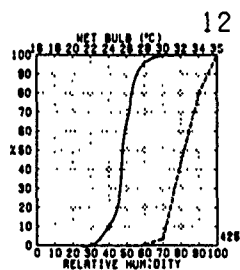
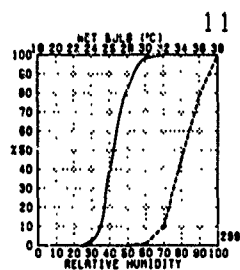
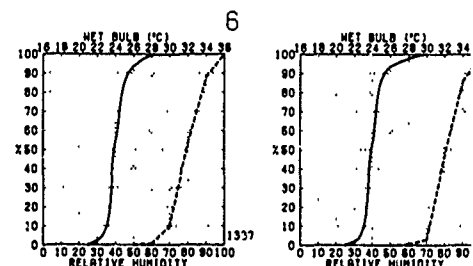
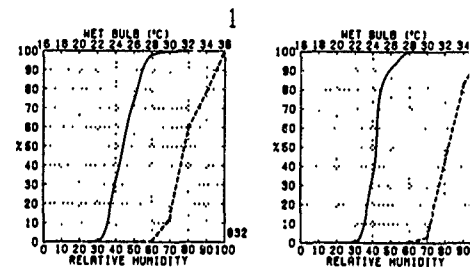
Wet bulb - Relative humidity.

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale)



BLUE LINE - Minimum (1%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

es equal to or less than the

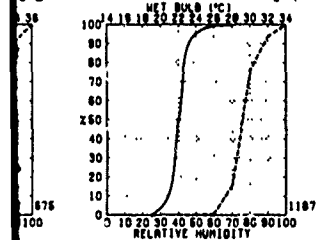
C or 54.5°F.)

equal to or less than the humidity

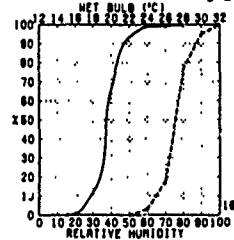
ual to or less than the given

greater than the given value)

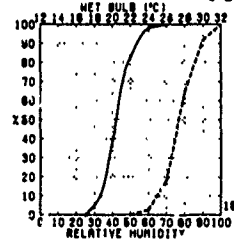
13



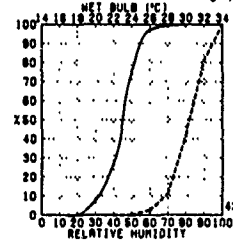
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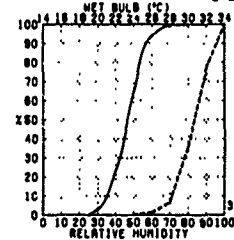
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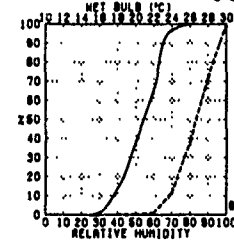
16



17

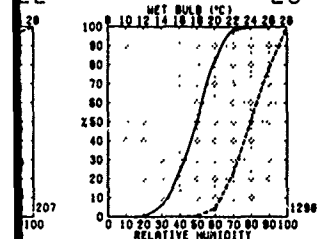


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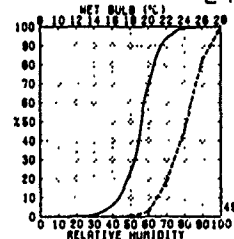


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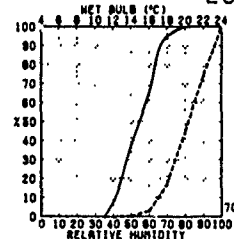
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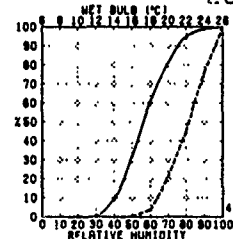
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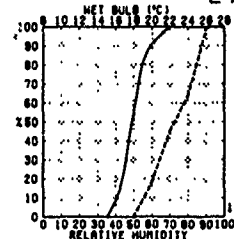
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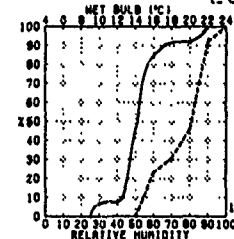
25



26

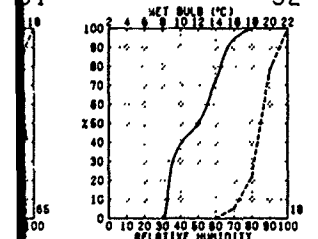


27

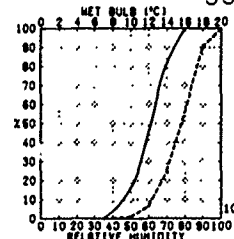


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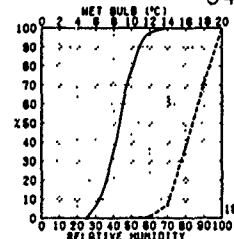
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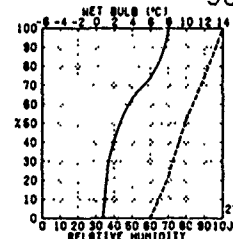
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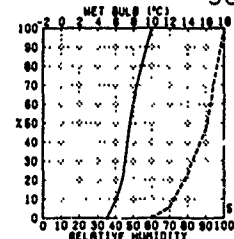
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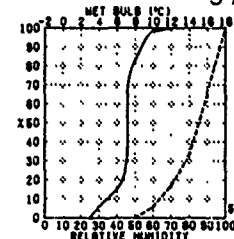
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35



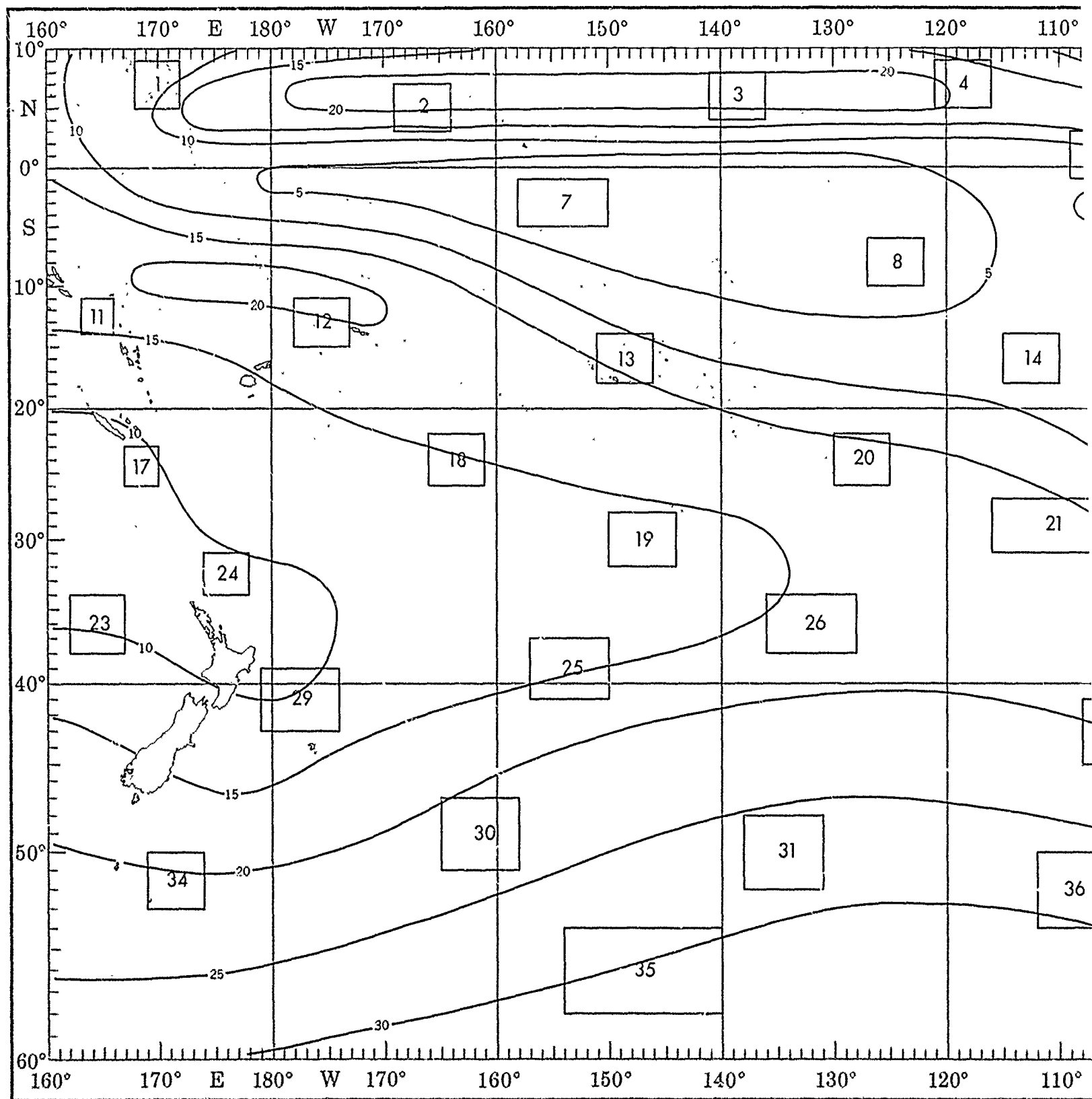
36



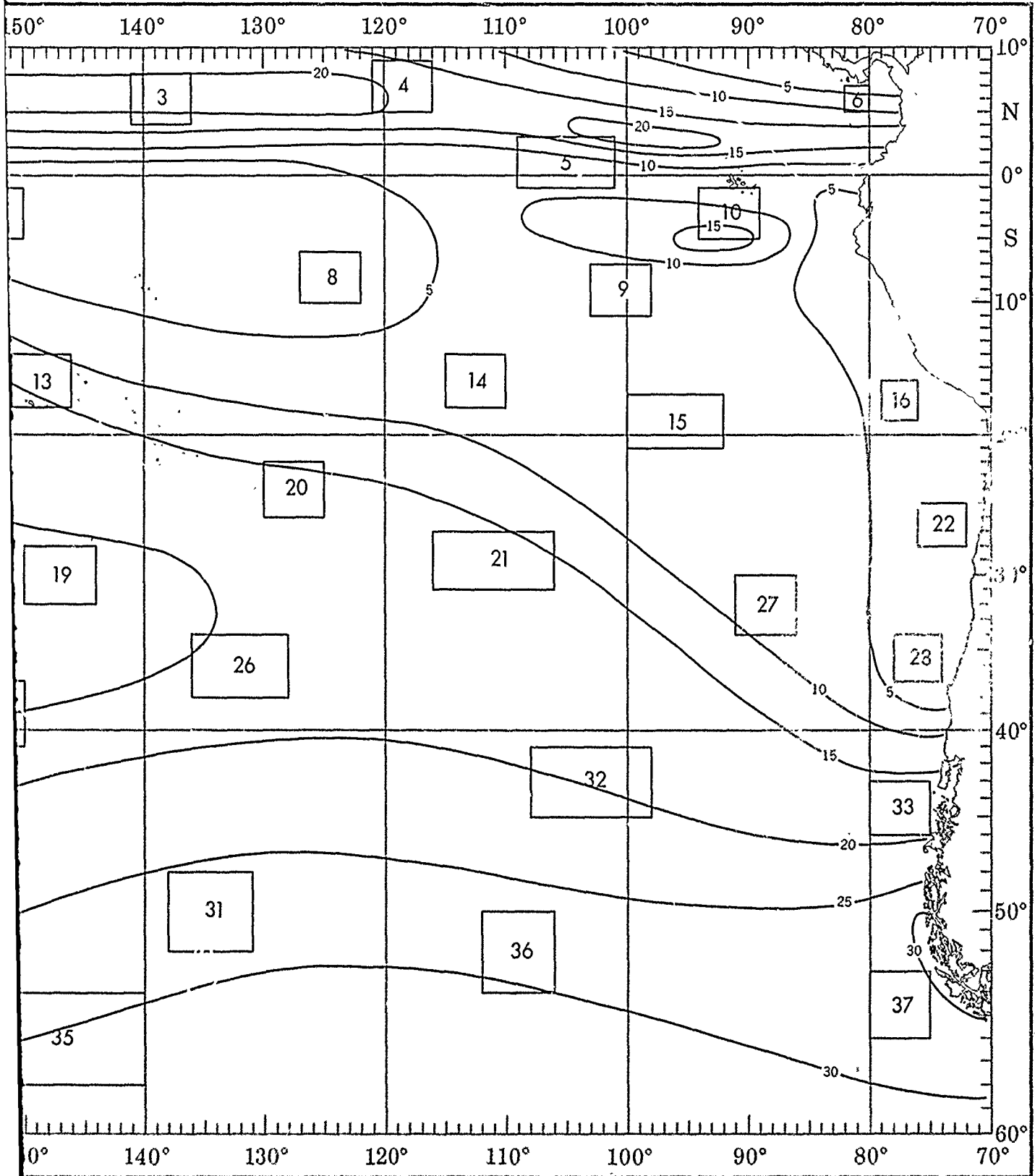
37

nt the objective compilation of available data for specified areas without regard to suspected biases.
 analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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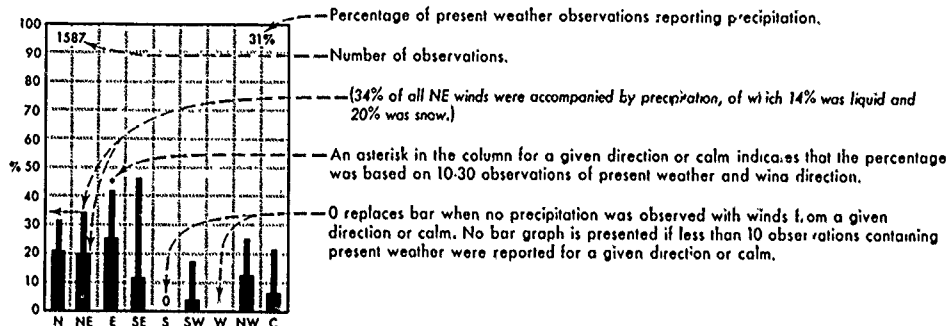
PRECIPITATION



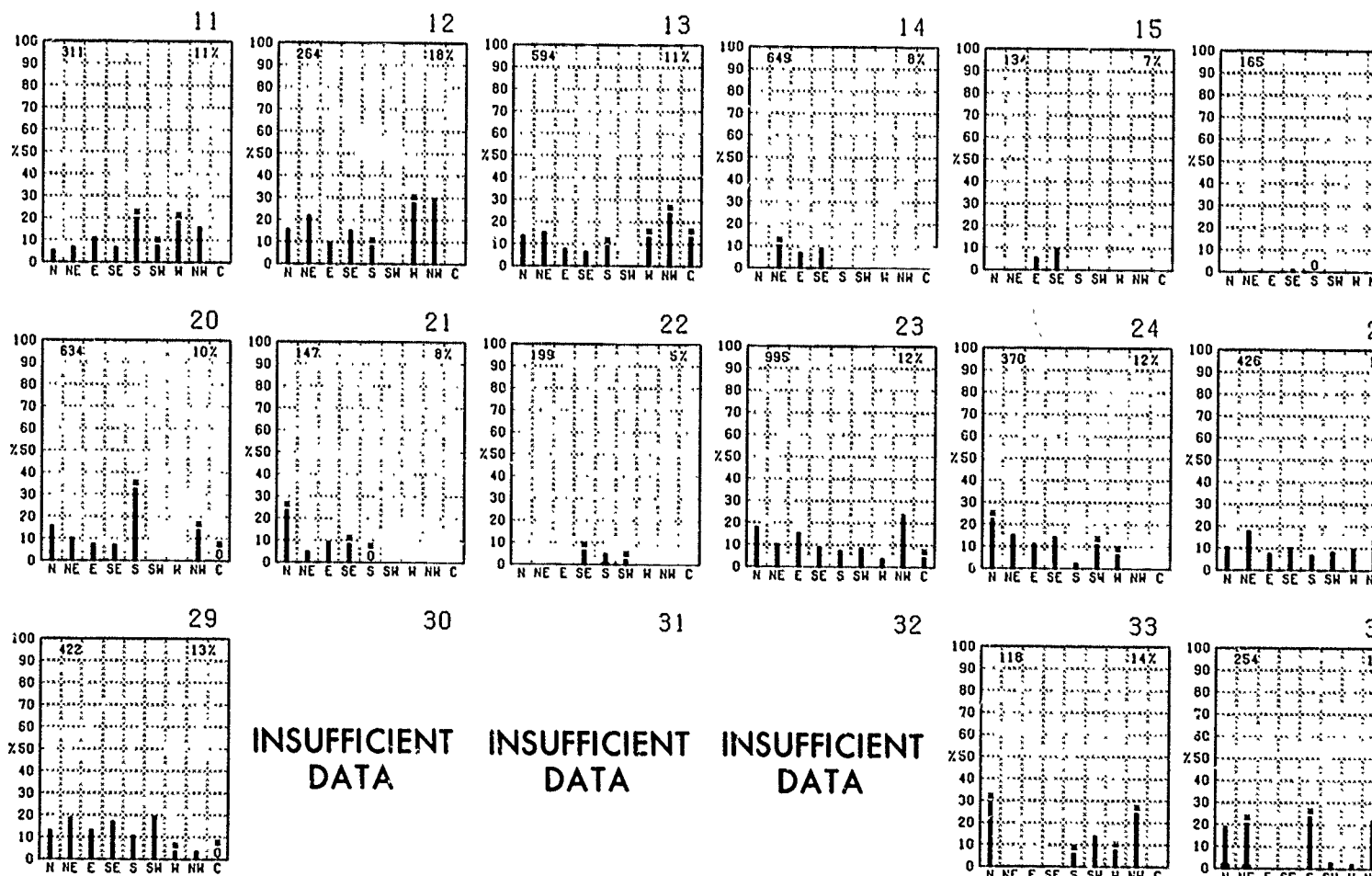
PRECIPITATION

% Pcpn. () % Liquid
() % Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without reg. The isopleth analyses (opposite page) are based on all available data subjectively adjusted

and calm that were
freezing rain and freezing
precipitation.
which 14% was liquid and
concludes that the percentage
of observations containing
floods from a given
precipitation observations containing



**INSUFFICIENT
DATA**

INSUFFICIENT DATA

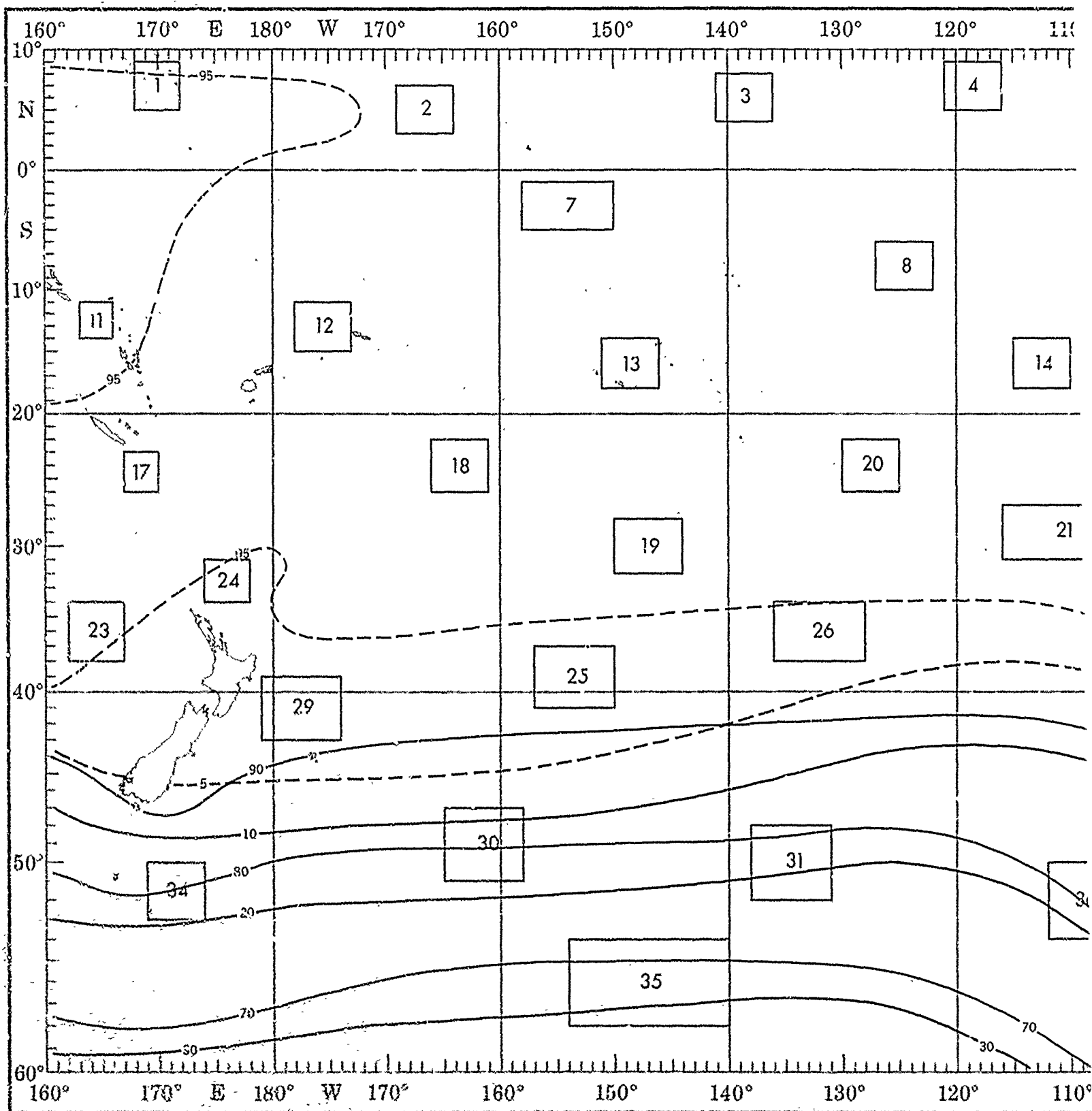
INSUFFICIENT DATA

1

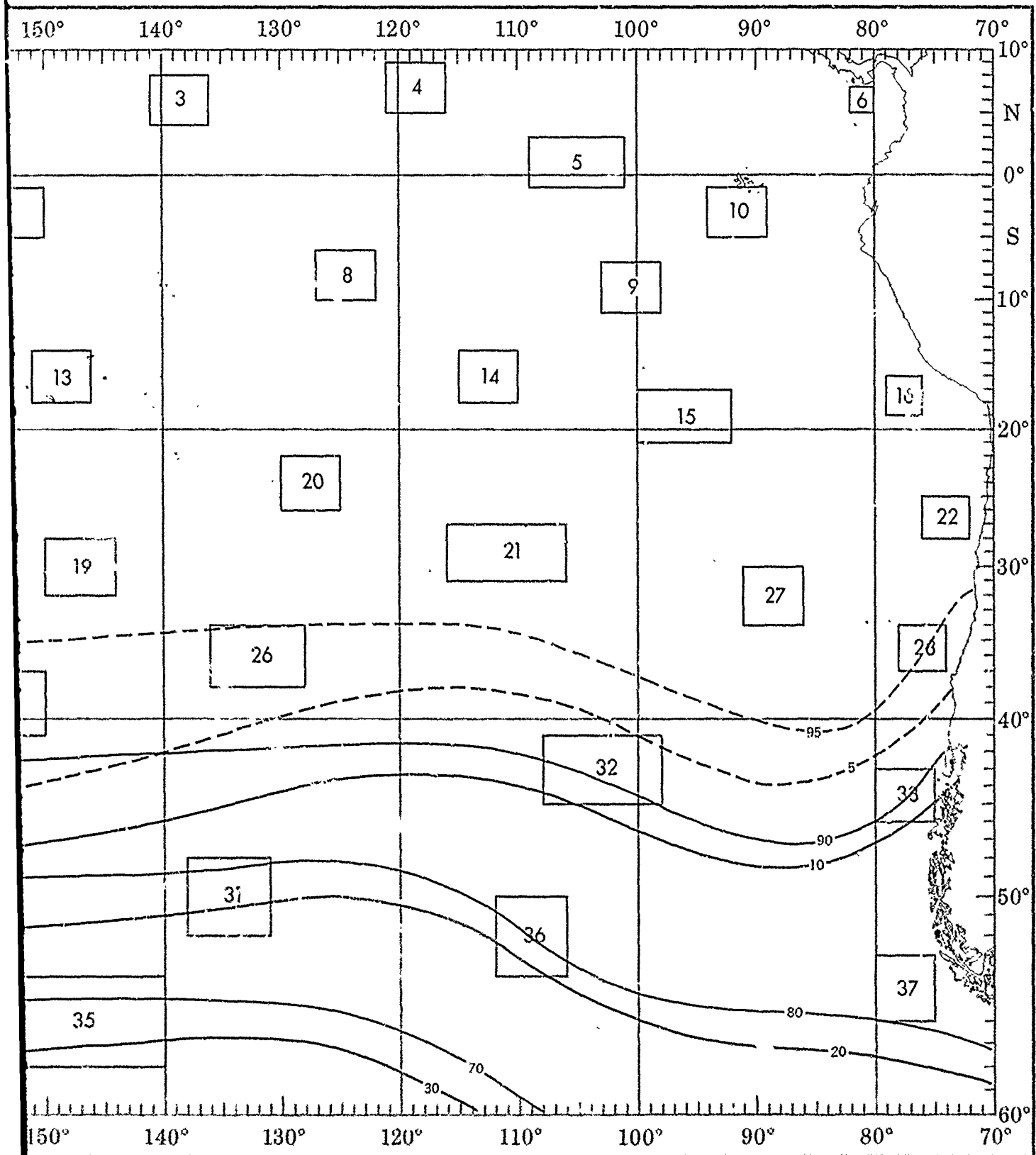
1

2

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VISIBILITY

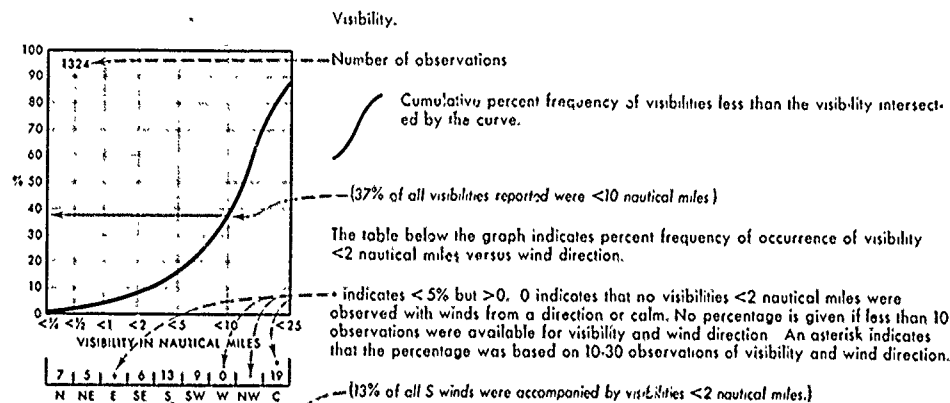


1

1

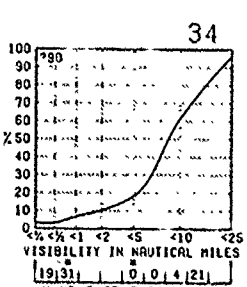
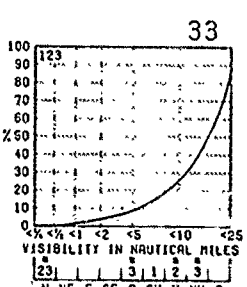
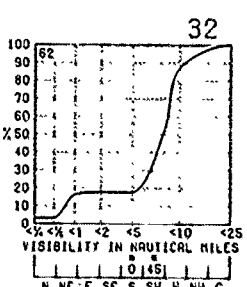
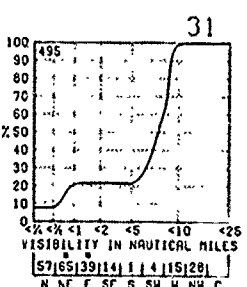
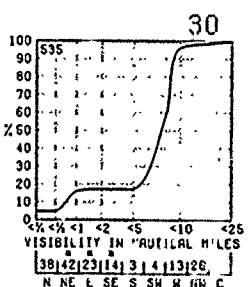
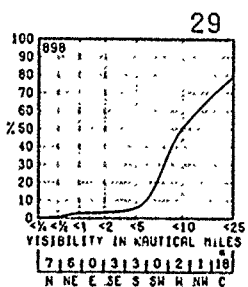
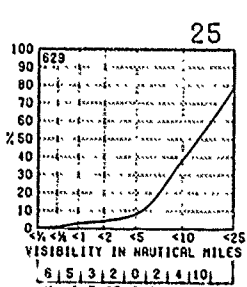
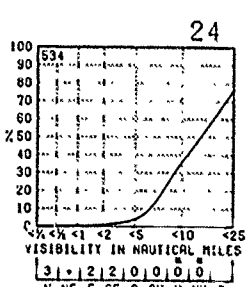
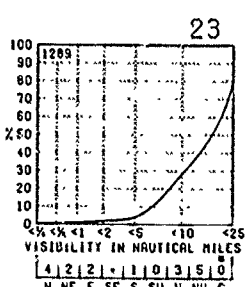
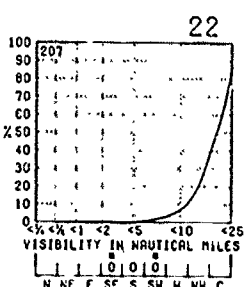
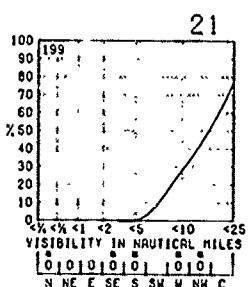
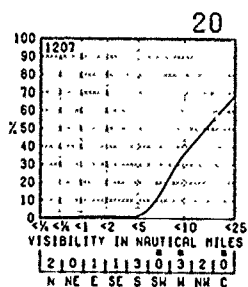
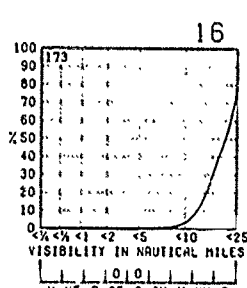
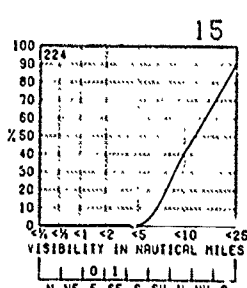
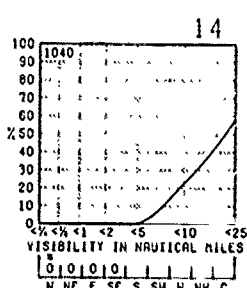
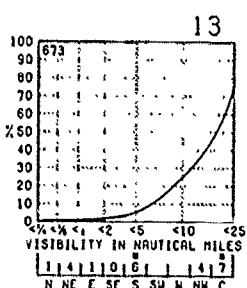
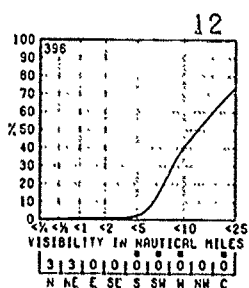
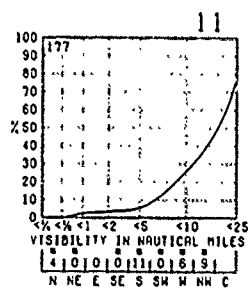
2

VISIBILITY



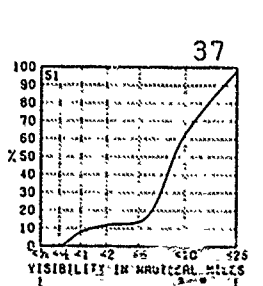
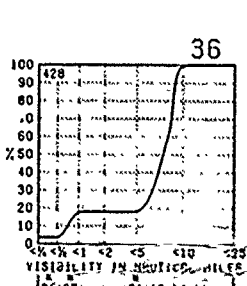
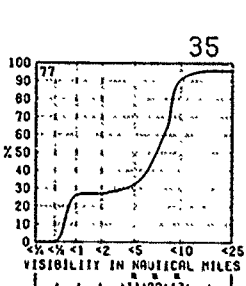
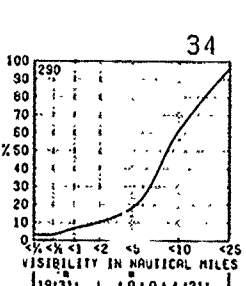
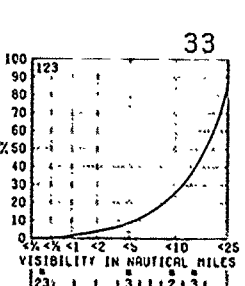
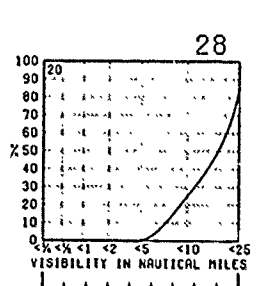
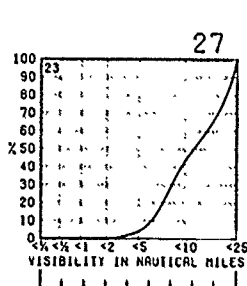
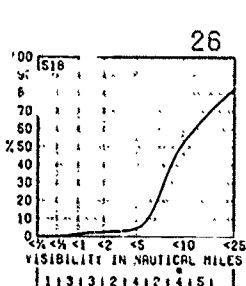
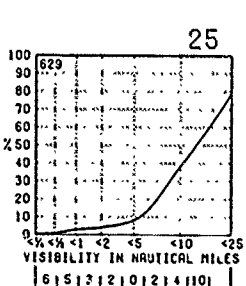
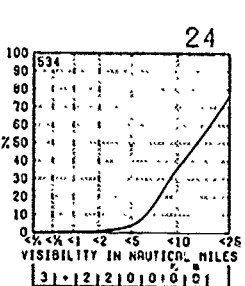
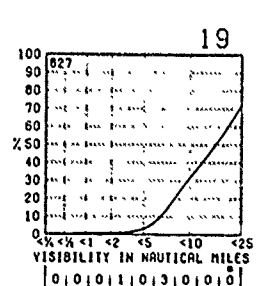
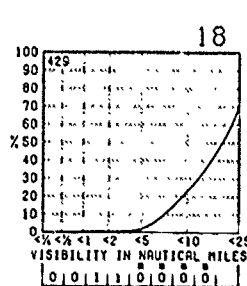
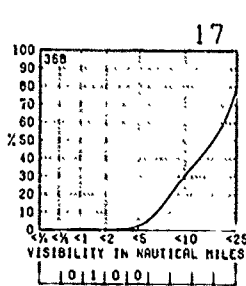
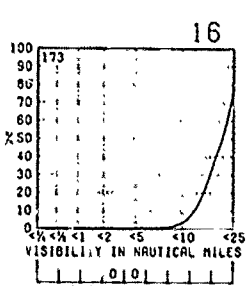
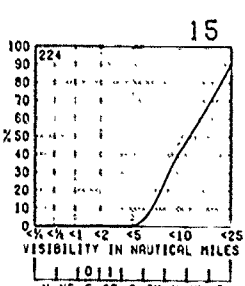
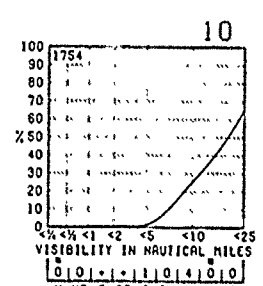
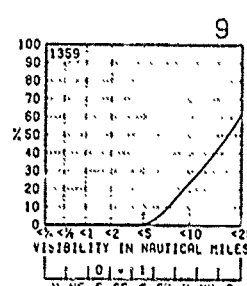
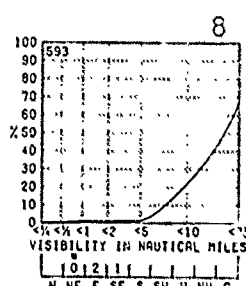
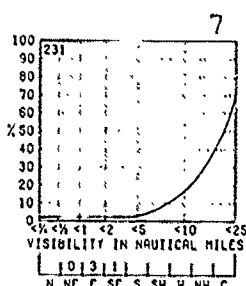
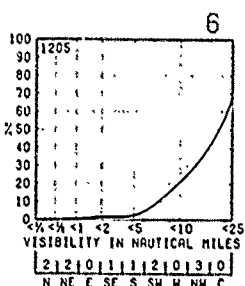
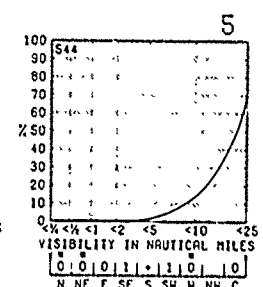
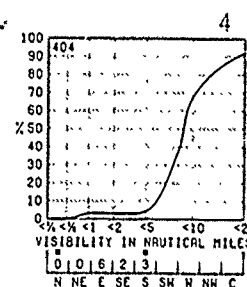
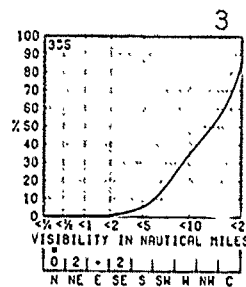
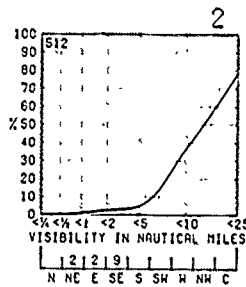
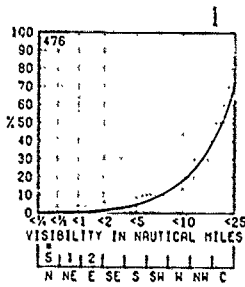
BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles

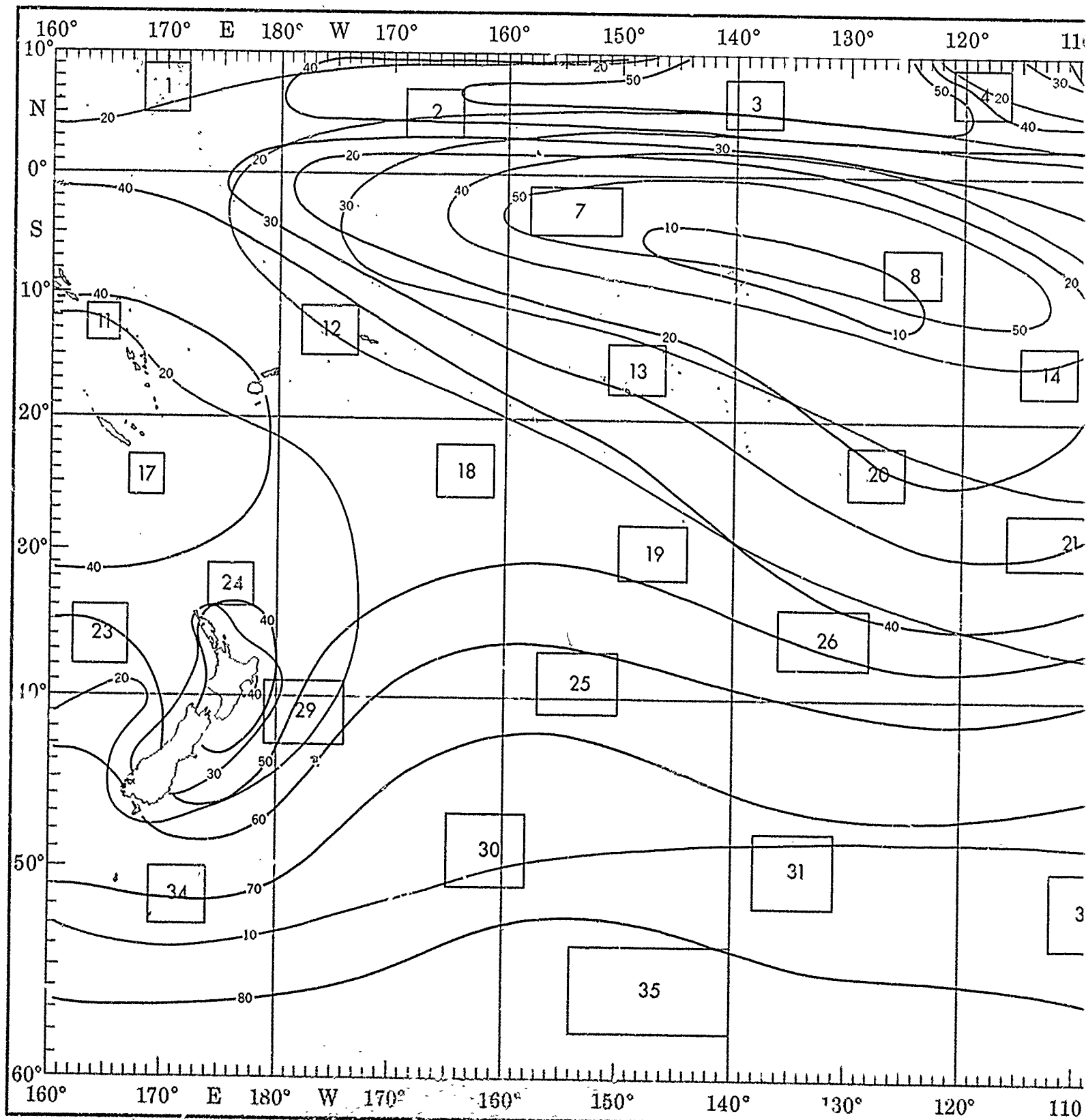


Graphs represent the objective compilation of available data for specified areas without regard to
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where t

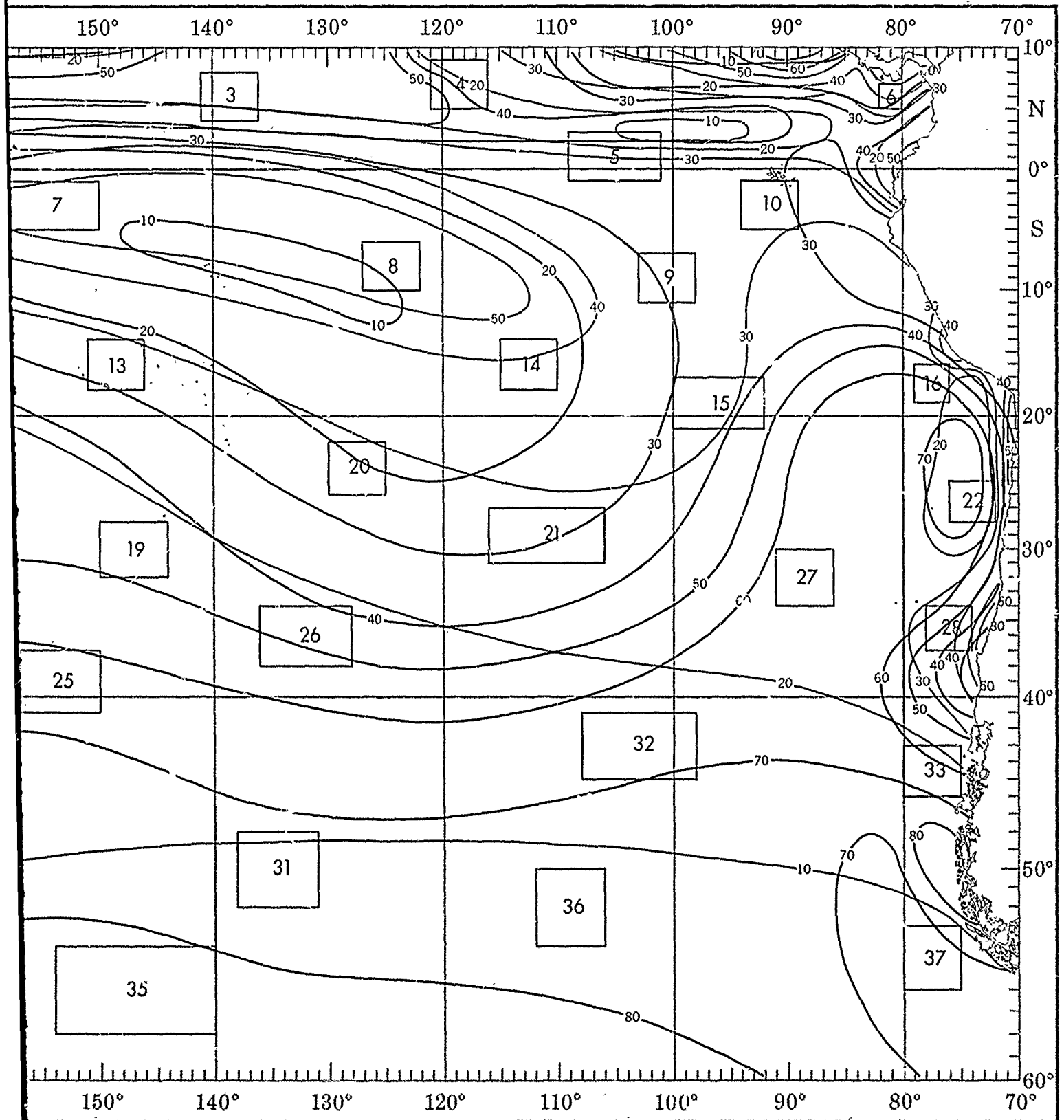
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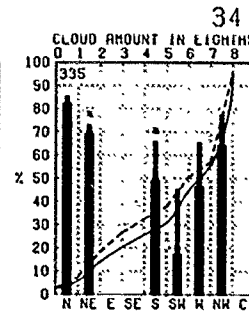
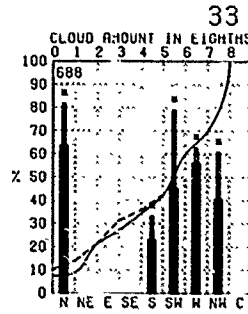
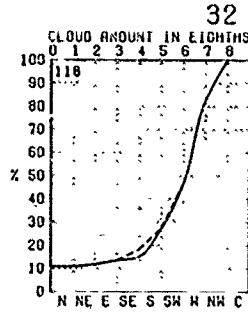
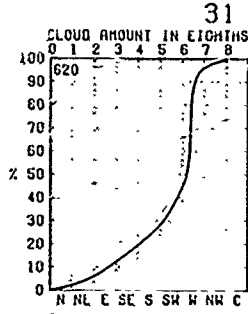
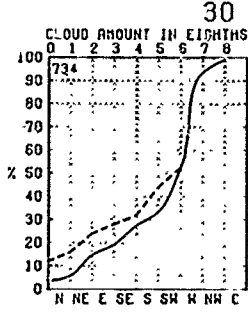
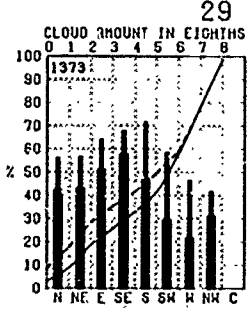
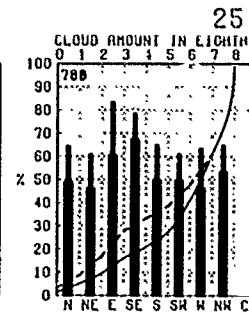
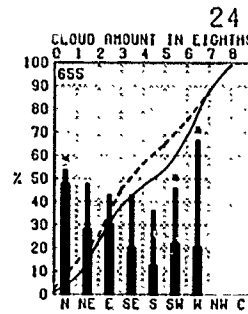
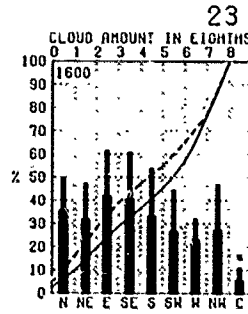
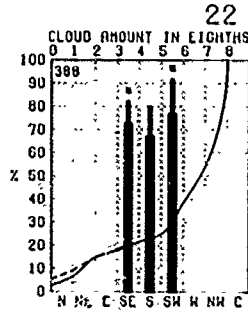
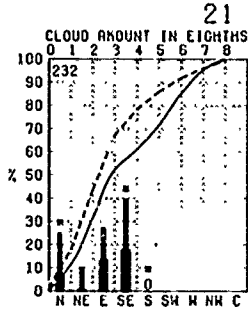
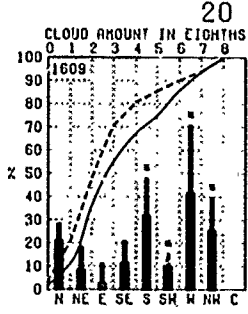
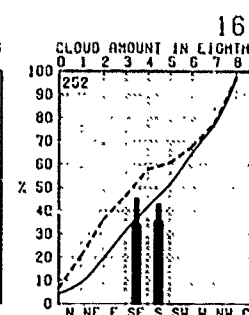
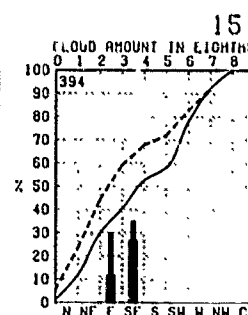
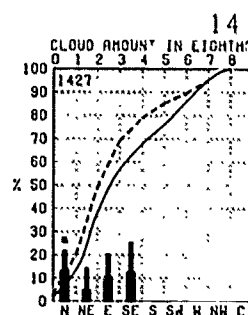
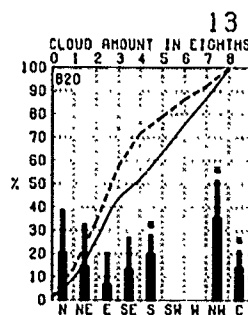
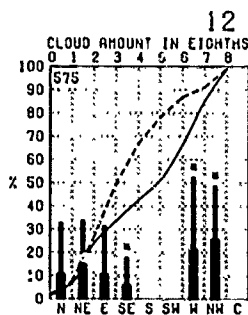
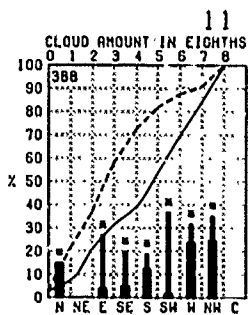
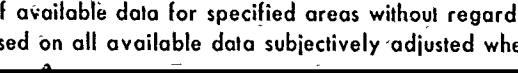
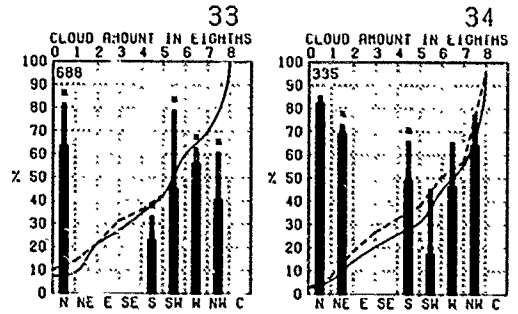
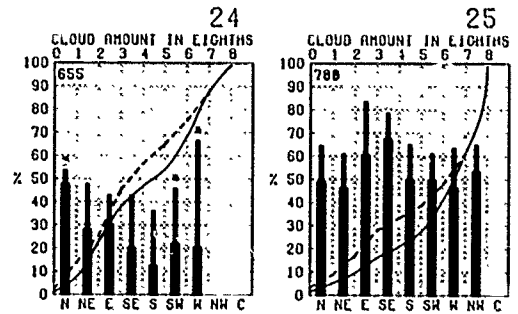
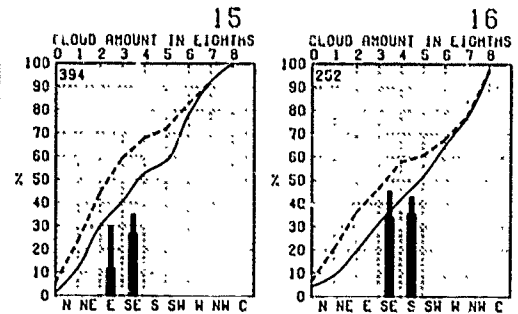
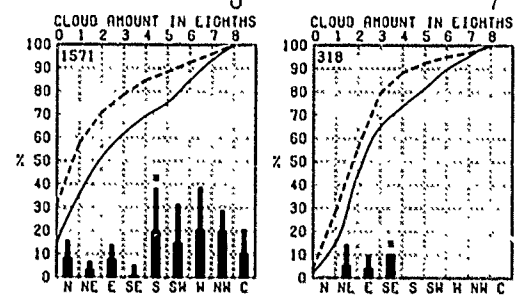
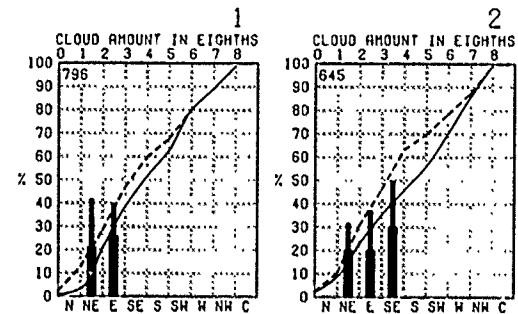
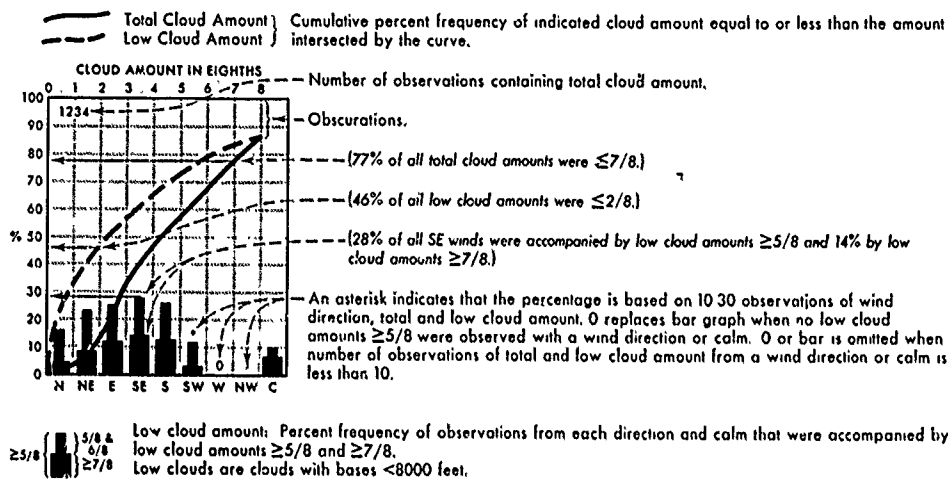
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CLOUD COVER



CLOUD COVER



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted when

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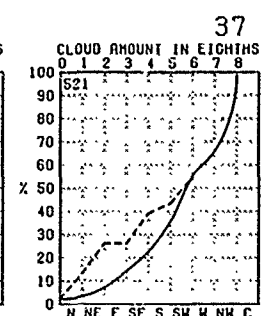
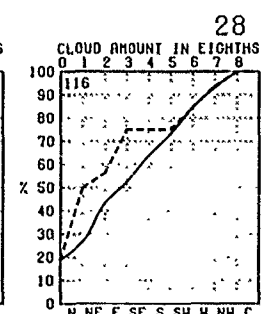
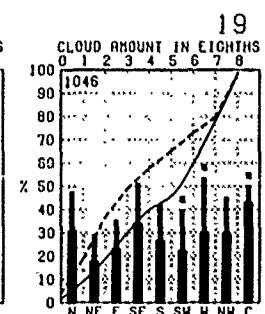
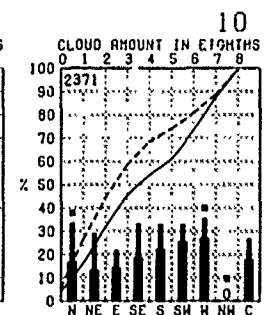
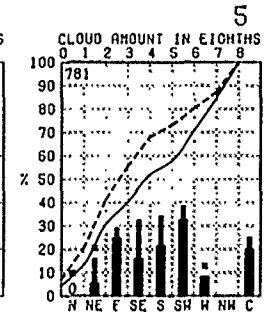
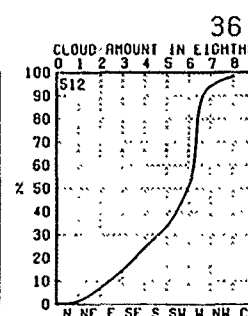
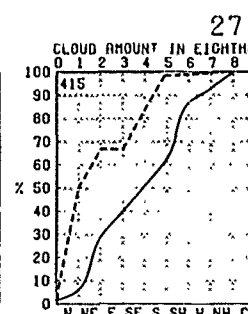
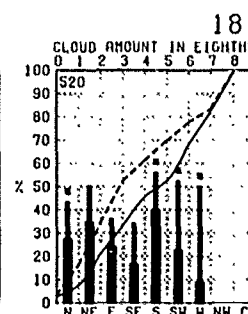
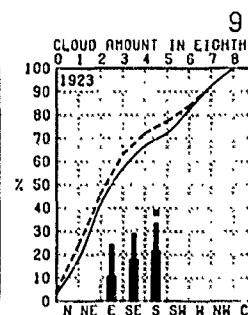
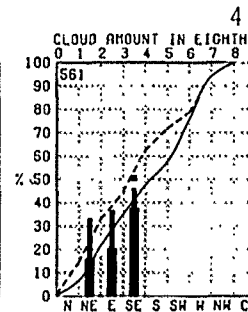
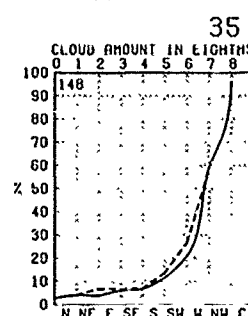
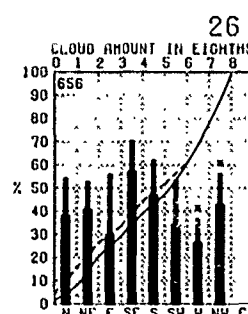
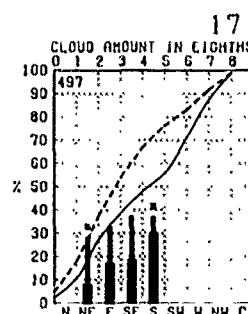
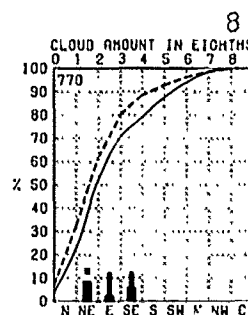
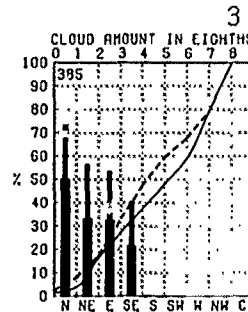
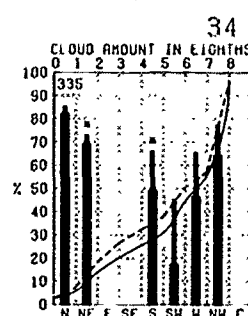
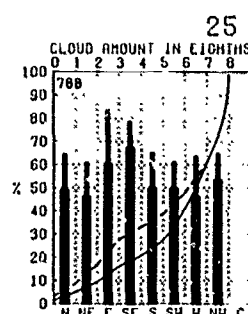
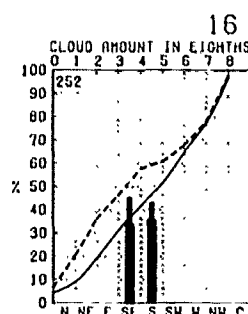
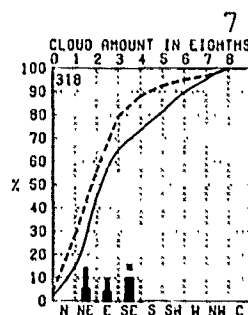
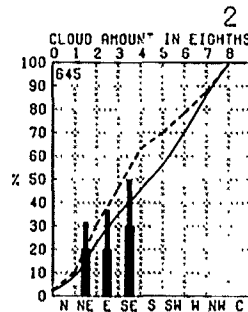
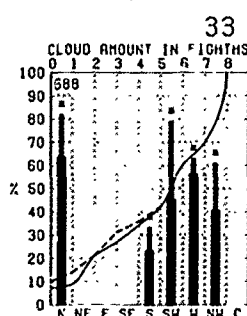
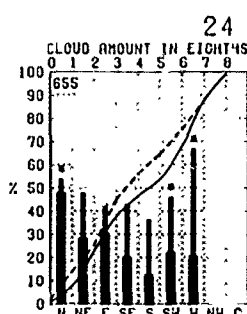
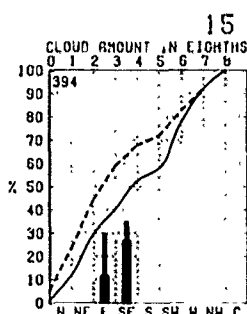
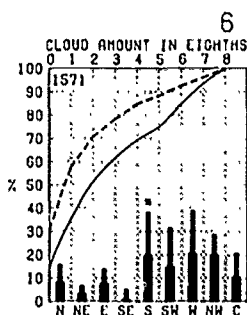
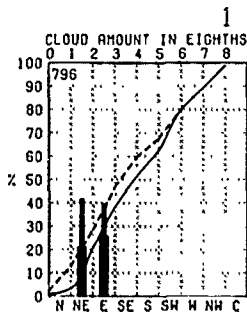
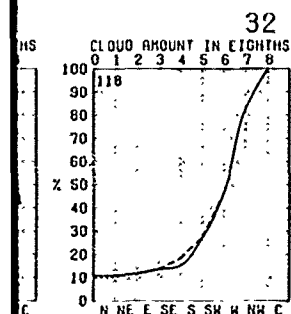
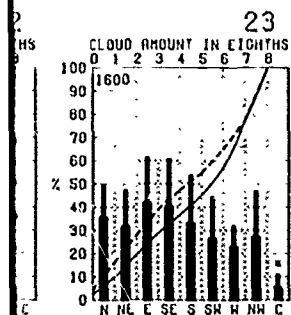
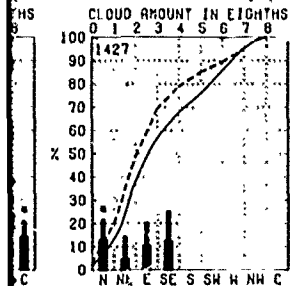
equal to or less than the amount

amounts $\geq 5/8$ and 14% by low

observations of wind
when no low cloud
in 0 or bar is omitted when
in a wind direction or calm is

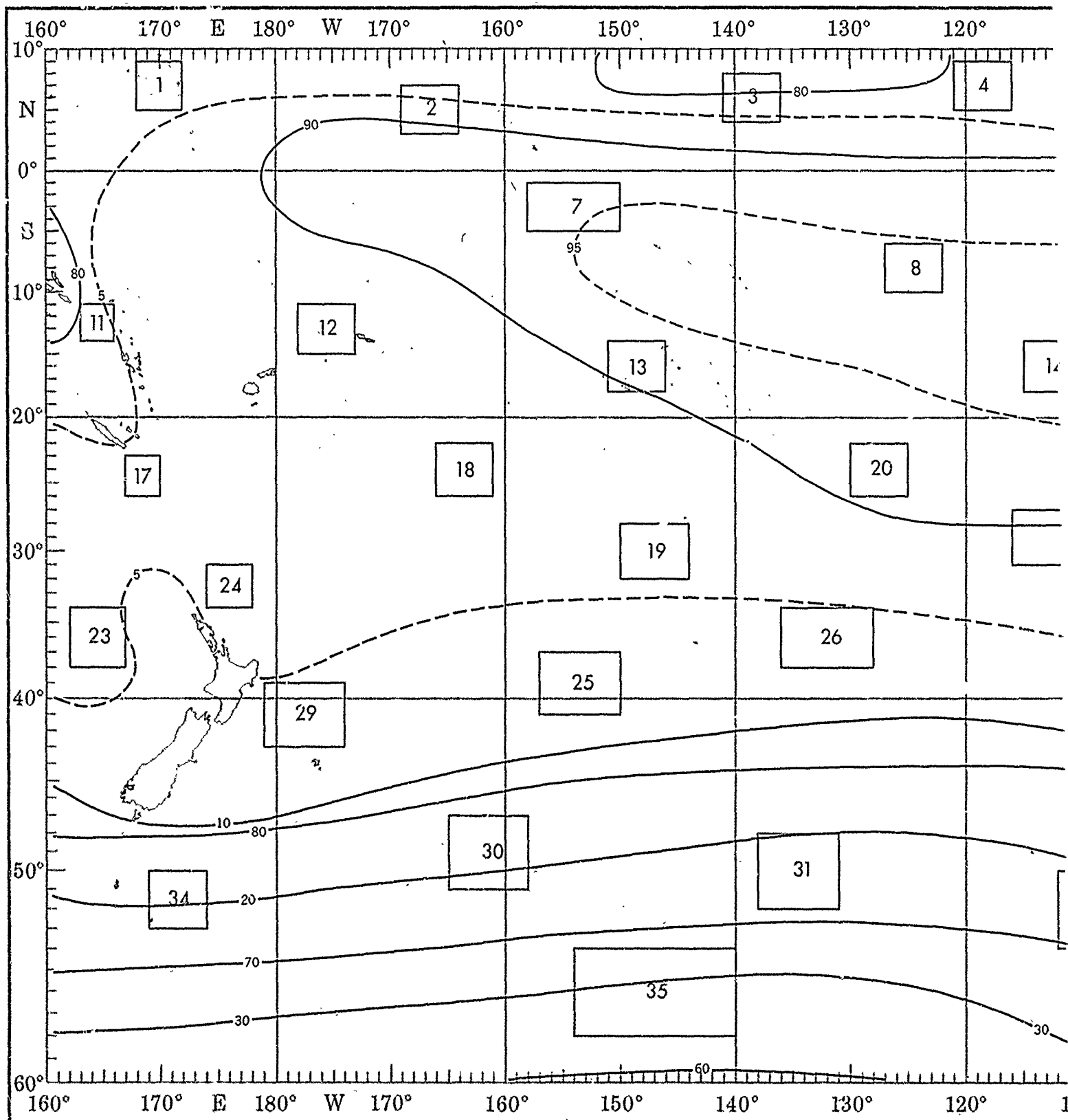
in that were accompanied by

3

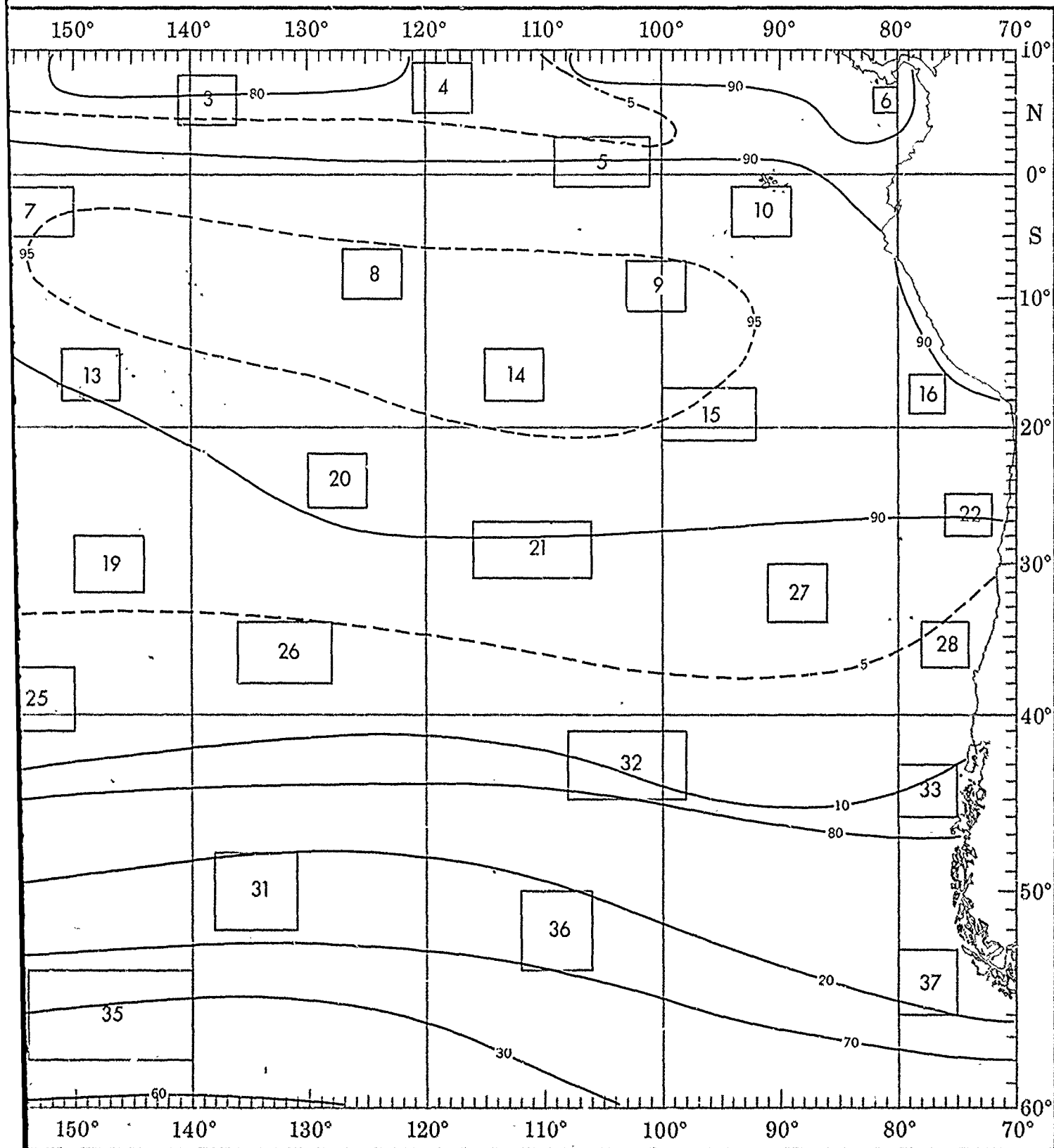


the objective compilation of available data for specified areas without regard to suspected biases.
ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

FEBRUARY



CEILING AND VISIBILITY



1

1

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Obscurations are included under ceiling "0 < 15".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles)

.. indicates $< 5\%$ but > 0 .

Number of observations.

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

334

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

BLUE LINE Percent frequency of low cloud ceiling ≥ 1000 feet (or nc low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

106

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

199

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

505

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

744

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

129

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

157

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

721

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

145

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

183

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

962

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

349

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	0
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

459

		VISIBILITY						29
		<1/2	1/2	1	2	4	5-10	>10
LOW CLOUD CEILING	NC	C	0	0	0	•	2	40
	50<80	0	0	0	0	0	0	2
	35<50	0	0	0	0	1	•	9
	20<35	•	0	•	•	•	3	10
	10<20	0	0	•	•	•	4	13
	6<10	0	•	0	0	1	3	3
	3<6	0	0	•	1	1	1	1
	1.5<3	0	0	0	0	0	•	0
0<1.5	1	•	•	•	•	•	0	

INSUFFICIENT
DATA

		VISIBILITY							1
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5<10	>10	
LOW CLOUD CEILING NOT	NC	0	0	0	0	0	7	50	
	50<80	0	0	0	0	0	0	0	
	35<50	0	0	0	0	0	0	1	
	20<35	0	0	0	0	0	0	6	
	10<20	0	0	0	0	0	3	6	
	6<10	0	0	0	0	0	3	15	
	3<6	0	0	0	0	1	2	3	
	1.5<3	0	0	0	0	0	0	0	
0<1.5	0	0	0	0	0	0	1		
								249	

		VISIBILITY						2
		<1/2	1/2-1	1-2	2-5	>5-10	>10	
LOW CLOUD CEILING	NC	0	0	0	1	5	57	
	50<80	0	0	0	0	*	*	
	35<50	0	0	0	0	0	1	
	20<35	0	0	0	0	*	4	
	10<20	0	0	0	1	5	14	
	6<10	*	0	1	1	2	3	
	3<6	*	0	1	1	1	1	
	1<3	0	0	0	0	*	0	
0<1.5	0	0	0	0	0	0	287	

		VISIBILITY						3
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LOW CLOUD CEILING	NC	•	0	0	1	2	43	
	50<80	0	0	0	0	•	2	
	35<50	0	0	0	0	0	3	
	20<35	0	0	0	0	4	5	
	10<20	0	0	0	1	5	12	
	6<10	0	•	•	1	6	9	
	3<6	0	0	0	0	2	1	
	1.5<3	0	0	0	0	0	0	
0<1.5	0	0	0	0	0	•		

217

		VISIBILITY					
		<1/2	1/2-1	1-2	2-5	5-10	>10
LOW CLOUD CEILING	NC	0	0	0	0	3	59
	50-80	0	0	0	0	0	0
	35-50	0	0	0	0	0	3
	20-35	0	0	0	0	1	3
	10-20	0	0	0	0	0	14
	6-10	0	0	1	1	4	4
	3-6	0	0	0	3	1	2
	1.5-3	0	0	0	0	1	0
0-1.5	0	0	0	0	0	0	

		VISIBILITY						5
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LOOK CLOUD CEILING	0	0	0	0	0	2	67	
	50-80	0	0	0	0	0	+	
	35-50	0	0	0	0	0	2	
	20-35	0	0	0	+	1	3	
	10-20	0	0	0	0	1	13	
	5-10	0	+	+	1	2	5	
	3-5	0	0	0	+	+	1	
	1-5	0	0	0	0	0	+	
0-1.5	0	0	0	0	0	+		

		VISIBILITY						6
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
NC		0	0	0	+	4	83	
50<80	0	0	0	0	0	0	+	
35<50	0	0	0	0	0	0	1	
20<35	0	0	0	0	0	0	2	
10<20	0	0	0	0	0	1	4	
6<10	0	0	0	0	0	1	3	
3<6	0	0	0	+	+	0	0	
1.5<3	0	0	0	0	+	0	0	
0<1.5	0	0	0	0	0	0	+	

828

		VISIBILITY							7
		<1/2	1/2-1	1-2	2-5	5-10	>10		
LOW CLOUD CEILING	NC	0	0	0	0	1	87		
	50+00	0	0	0	0	0	0		
	35+50	0	0	0	0	0	1		
	20+35	0	0	0	0	1	4		
	10+20	0	0	0	1	1	5		
	6+10	0	0	0	0	1	0		
	3+6	0	0	0	0	0	0		
	1-5+3	0	0	0	0	0	0		
0+1-5	0	0	0	0	0	0	0		
								171	

		VISIBILITY						8
		<1/8	1/8-1/4	1/4-1/2	1/2-5/8	5/8-10/10	>10	
LOW CLOUD CEILING	NC	0	0	0	0	0	1	87
	50<80	0	0	0	0	0	0	0
	35<80	0	0	0	0	0	0	0
	20<35	0	0	0	0	0	0	2
	10<20	0	0	0	0	0	0	6
	6<10	0	0	0	0	0	0	3
	3<6	0	0	0	0	0	0	1
	1.5<3	0	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0	0	

		VISIBILITY						
		<1/2	1/2-1	1-2	2-5	5-10	10 or more	
LOW CLOUD CEILING	NC	0	0	0	0	+	72	
	50<80	0	0	0	0	0	1	
	35<50	0	0	0	0	+	3	
	20<35	0	0	0	0	+	7	
	10<20	0	0	0	0	1	11	
	6<10	0	0	+	+	1	3	
	3<6	0	0	0	0	+	+	
	1.5<3	0	0	0	0	0	+	
0<1.5	0	0	0	0	0	0		

		VISIBILITY						10
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LOW CLOUD CEILING	NC	0	0	0	+	2	57	
	50<80	0	0	0	0	+	1	
	35<50	0	0	0	0	+	3	
	20<35	0	0	0	+	1	4	
	10<20	0	0	+	+	2	11	
	5<10	0	+	+	+	2	5	
	3<5	0	0	0	+	1	1	
	1.5<3	0	0	0	0	+	+	
0<1.5	0	0	0	0	0	0		
								174B

		VISIBILITY							15
		<1/4	1/4-1/2	1/2-1	2-6	6-10	≥10		
LOW CLOUD CEILING	NC	0	0	0	0	0	2	65	
	50-80	0	0	0	0	0	0	2	
	35-50	0	0	0	0	0	0	4	
	20-35	0	0	0	0	0	1	9	
	10-20	0	0	1	0	2	15		
	6-10	0	0	0	0	0	0	1	
	3-6	0	0	0	0	0	0	0	
	1.5-3	0	0	0	0	0	0	0	
	0-1.5	0	0	0	0	0	0	0	
							129		

		VISIBILITY							16
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	NC	0	0	0	0	4	55		
	50-80	0	0	0	0	0	4		
	35-50	C	0	0	0	0	4		
	20-35	0	0	0	0	0	11		
	10-20	0	0	0	0	0	15		
	6-10	0	0	0	0	0	8		
	3-6	0	0	0	0	0	0		
	1-3	0	0	0	0	0	0		
0-1	0	0	0	0	0	0			

		VISIBILITY					
		<1/2	1/2-1	1-2	2-5	5-10	>10
LOW CLOUD CEILING	NC	0	0	0	+	5	61
	50+80	0	0	0	0	+	+
	35+50	0	0	0	0	0	2
	20+35	0	0	0	0	0	+
	10+20	0	0	0	0	0	2
	6+10	0	0	0	+	2	8
	3+6	0	0	0	1	1	1
	1.5+3	0	0	0	0	0	0
	0+1.5	0	0	0	0	0	0

		VISIBILITY						18
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LON CLOUD CEILING	NC	0	0	0	0	1	61	
	50+00	0	0	0	0	0	0	
	35+50	0	0	0	0	0	1	
	20+35	0	0	0	0	+	4	
	10+20	0	0	0	1	6	14	
	6+10	0	+	0	1	3	6	
	3+6	0	0	0	0	1	1	
	1.5+3	0	0	+	0	0	0	
0<1.5	0	0	0	+	0	0		

		VISIBILITY						19
		<1/4	1/4-1	1-2	2-5	5-10	>10	
LOW CLOUD CEILING	NC	0	0	0	+	1	57	
	50<80	0	0	0	0	0	+	
	35<50	0	0	0	0	+	3	
	20<35	0	0	0	+	1	4	
	10<20	+	0	0	+	3	11	
	6<10	0	0	0	1	5	8	
	3<6	0	0	0	+	1	1	
	1.5<3	0	0	0	0	+	+	
0<1.5	0	0	0	0	+	+		

		VISIBILITY							24
		<1/4	1/4-1/2	1/2	2-4	5-10	≥10		
LOW CLOUD CEILING	NC	0	0	0	1	3	52		
	50-80	0	0	0	0	0	0		
	35-50	0	0	0	0	•	1		
	20-35	0	0	0	•	1	5		
	10-20	0	0	•	1	4	16		
	8-10	0	0	0	1	3	7		
	3-6	0	0	0	1	1	1		
	1.5-3	0	0	0	•	1	0		
0-1.5	0	1	•	1	0	0			
								248	

		VISIBILITY						25
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LOW CLOUD CEILING	NC	0	*	*	0	3	30	
	50+80	0	0	0	*	*	1	
	35+60	0	*	0	*	1	6	
	20+35	0	0	*	*	*	1	
	10+20	*	*	0	2	4	22	
	5+10	0	0	0	1	5	10	
	3+5	0	*	*	1	1	*	
	1.5+3	0	0	0	*	*	0	
0+1.5	0	*	*	*	0	*		

		VISIBILITY							26
		<1/2	1/2-1	1-2	2-5	5-10	10-10		
LOH CLOUD CEILING	HC	0	+	0	0	1	44		
	50<80	0	0	0	0	0	2		
	35<50	0	0	0	0	1	2		
	20<35	0	0	+	0	3	14		
	10<20	0	0	0	1	4	12		
	6<10	0	0	1	1	5	5		
	3<6	0	0	0	1	2	+		
	1-5<3	0	0	0	0	0	0		
0<1-5	0	0	+	1	+	0			

27

INSUFFICIENT
DATA

		VISIBILITY							28
		<1/2	1/2-1	1-2	2-5	5-10	>10		
LOW CLOUD CEILING	NC	0	0	0	0	25	50		
	50<80	0	0	0	0	0	0		
	35<50	0	0	0	0	0	0		
	20<35	0	0	0	0	0	6		
	10<20	0	0	0	0	0	*3		
	6<10	0	0	0	0	0	0		
	3<6	0	0	0	0	6	0		
	1-5<3	0	0	0	0	0	0		
0<1.5	0	0	0	0	0	0			

		VISIBILITY							33
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	NC	0	1	0	0	0	3	33	
	CO<40	0	0	0	0	0	1		
	35<50	0	0	1	0	1	3		
	20<35	0	0	0	0	6	12		
	10<20	0	0	0	2	3	7		
	6<10	0	0	0	0	3	20		
	3<6	0	0	0	2	1	1		
	1.5<3	0	0	0	0	1	0		
0<1.5	0	0	0	2	0	0			

		VISIBILITY							34
		<1/2	1/2-1	1-2	2-5	5-10	>10		
LOW CLOUD CEILING	NC	0	0	0	1	16	17		
	50+80	0	0	0	0	1	1		
	35+50	0	0	0	0	1	1		
	20+35	0	0	1	1	11	11		
	10+20	0	0	0	1	11	9		
	6+10	0	0	0	0	3	3		
	3+6	0	0	1	1	1	0		
	1.5+3	0	0	0	0	0	0		
0+1.5	2	1	1	3	•	0			

		VISIBILITY							35
		<1/4	1/4-1	1-2	2-5	5-10	>10		
LOW CLOUD CEILING	NC	0	0	0	0	0	7	0	
	50+80	0	0	0	0	7	0	0	
	35+50	0	0	0	0	0	0	0	
	20+35	0	0	0	0	14	14	0	
	10+20	0	0	0	14	21	0	0	
	6+10	0	0	0	0	0	0	0	
	3+6	0	0	0	0	0	0	0	
	1.5+3	0	0	0	0	0	0	0	
0.1-1.5	0	7	7	7	0	0	0		

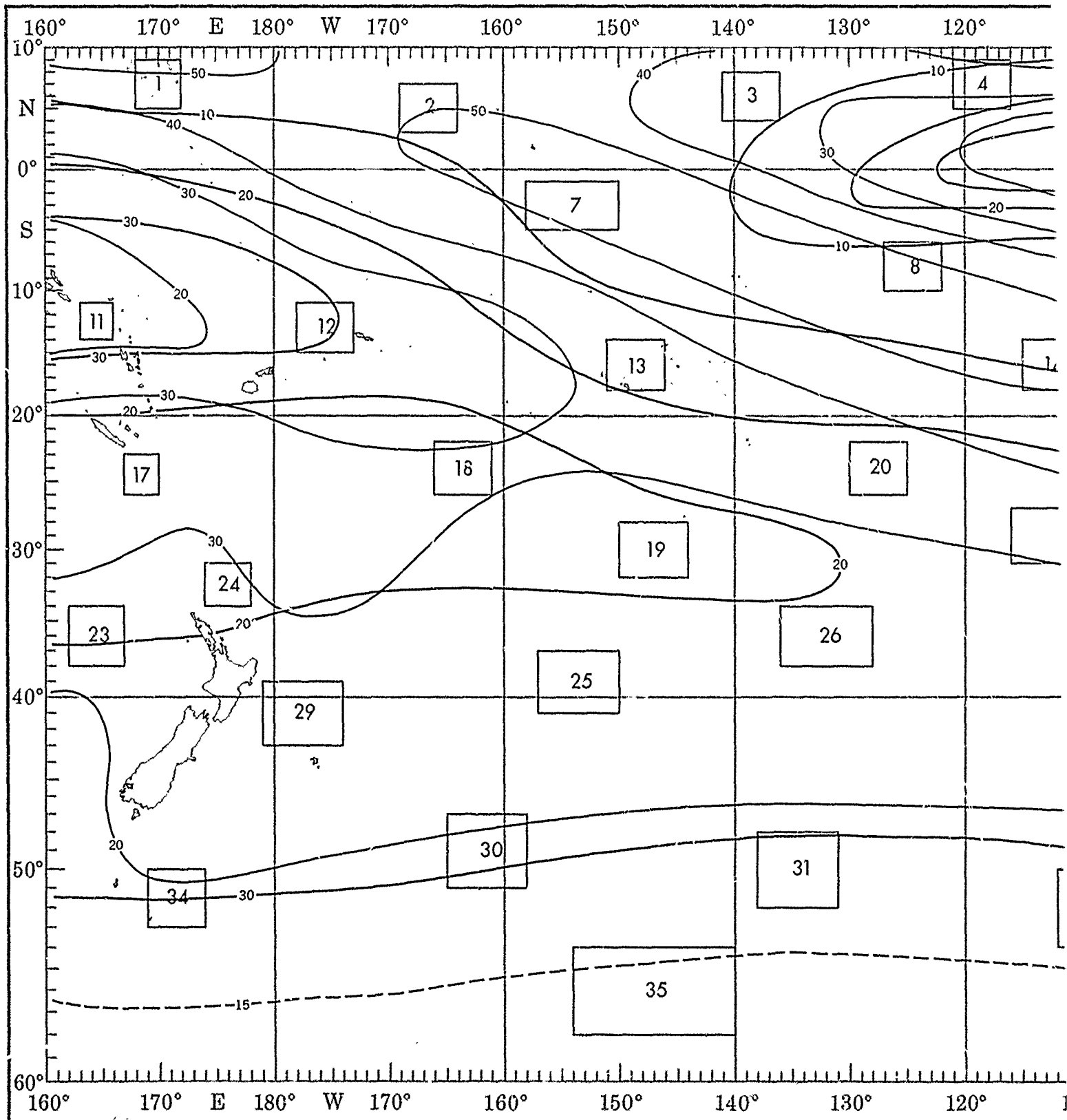
36

**INSUFFICIENT
DATA**

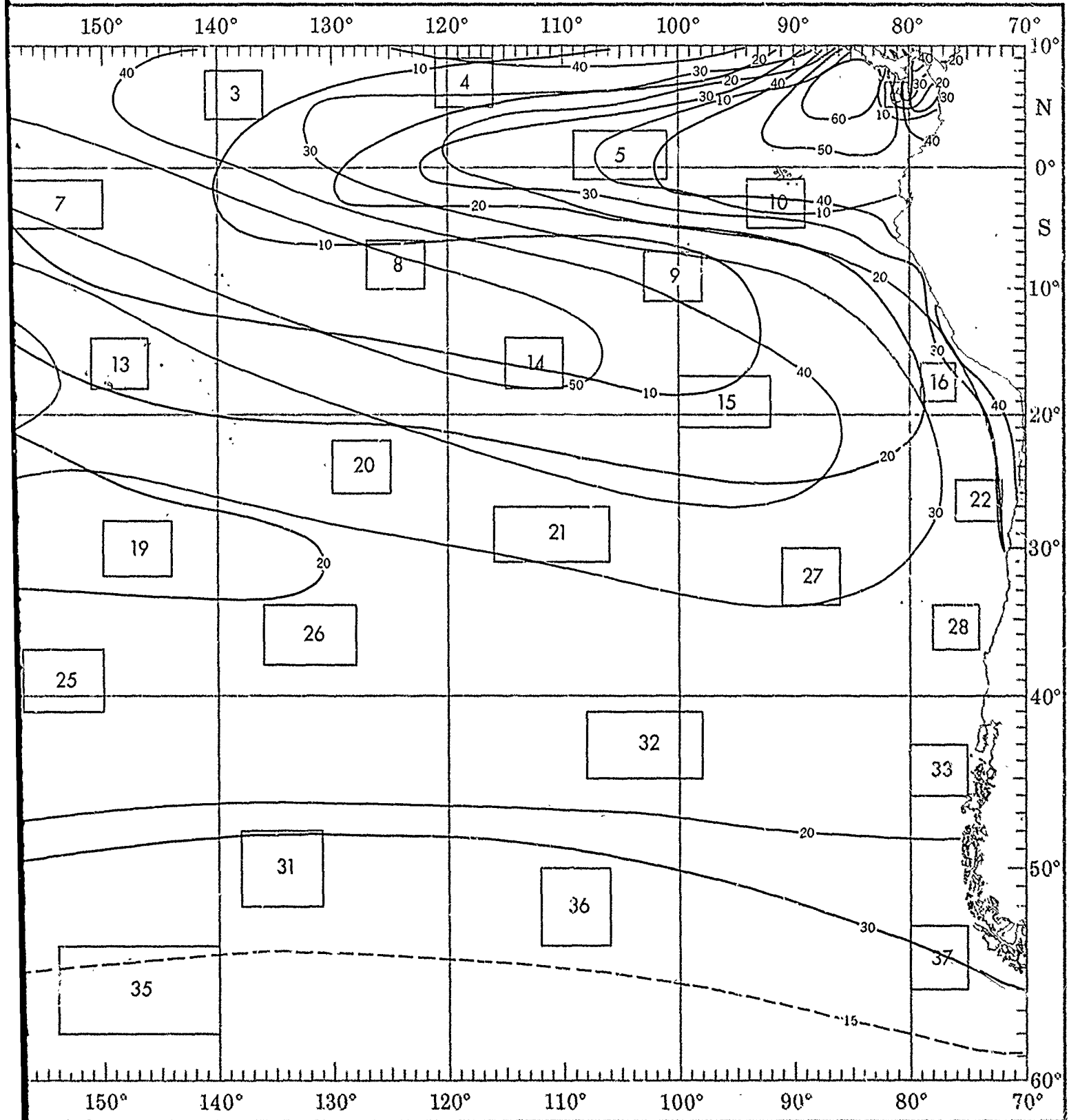
		VISIBILITY						37
		<1/2	1/2-1	1-2	2-6	6-10	10	
LOW CLOUD CEILING	NC	0	0	0	0	0	39	
	50<80	0	0	0	0	0	0	
	35<50	0	0	0	0	4	4	
	20<35	0	0	0	0	4	4	
	10<20	0	0	0	0	0	0	
	1-10	0	0	4	4	9	17	
	3-6	0	0	0	0	0	0	
	1.5<3	0	0	0	0	0	0	
0.1-1.5	0	0	4	0	4	0		

FEBRUARY

WIND



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbv) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (knots)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	1	0	0
<6 LOR <2	2	2	1	1	0
Vsbv <2	1	2	1	1	0
<10 LOR <5	3	4	2	1	1
<20 LOR <5	8	9	6	5	2
Vsbv ≥5	9	11	12	3	1
≥10 LOR ≥5	12	13	15	7	3
NC & ≥10	4	2	1	1	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is ≥5/8.

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥8000 feet as well as occurrences of N_h <5/8.

indicates <.5% but >0.

1234 ← Number of observations.

Conditions for Carrier Operations

BLUE LINE Percent frequency of optimum conditions. LCC ≥5000 ft, (or no LCC), Vsbv ≥5 nm, and Wind 11-21 kts.

RED LINE Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC <300 ft, Vsbv <1 nm, Wind <6 or ≥34 kts.

Satisfactory conditions between poor and optimum

11

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	0	0	0
<6 LOR <2	0	3	3	0	0
Vsbv <2	0	2	2	0	0
<10 LOR <5	1	5	8	1	0
<20 LOR <5	1	9	13	1	0
Vsbv ≥5	10	50	32	1	0
≥50 LOR ≥5	8	43	23	0	0
NC & ≥10	8	35	22	0	0

105

12

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	1	1	0
<6 LOR <2	0	1	2	2	0
Vsbv <2	0	0	1	1	0
<10 LOR <5	0	4	4	3	0
<20 LOR <5	1	9	11	4	0
Vsbv ≥5	10	46	34	6	0
≥50 LOR ≥5	10	35	20	4	0
NC & ≥10	9	34	17	4	0

197

13

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	+	0	0	0
<6 LOR <2	+	1	1	0	+
Vsbv <2	+	0	0	0	0
<10 LOR <5	1	3	5	+	+
<20 LOR <5	1	8	12	1	+
Vsbv ≥5	6	47	39	3	0
≥50 LOR ≥5	5	37	28	2	0
NC & ≥10	4	35	24	1	0

500

14

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	+	+	0	0
<6 LOR <2	0	+	+	0	0
Vsbv <2	0	0	0	0	0
<10 LOR <5	0	1	2	+	0
<20 LOR <5	0	4	8	1	0
Vsbv ≥5	2	39	56	3	0
≥50 LOR ≥5	2	32	44	2	0
NC & ≥10	2	31	43	2	0

743

15

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	0	0	0
<6 LOR <2	0	0	0	0	0
Vsbv <2	0	0	1	0	0
<10 LOR <5	0	1	1	0	0
<20 LOR <5	0	5	11	1	0
Vsbv ≥5	1	49	48	2	0
≥50 LOR ≥5	1	38	30	0	0
NC & ≥10	1	35	29	0	0

128

16

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	0	0	0
<6 LOR <2	0	0	0	0	0
Vsbv <2	0	0	0	0	0
<10 LOR <5	0	3	5	0	0
<20 LOR <5	1	7	15	0	0
Vsbv ≥5	2	36	62	1	0
≥50 LOR ≥5	1	24	36	1	0
NC & ≥10	1	24	29	0	0

157

20

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	+	+	+	0
<6 LOR <2	0	+	1	+	0
Vsbv <2	0	+	+	+	0
<10 LOR <5	0	2	4	+	0
<20 LOR <5	0	6	7	+	0
Vsbv ≥5	4	47	46	2	0
≥50 LOR ≥5	4	40	37	1	0
NC & ≥10	4	39	36	1	0

714

21

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	0	0	0
<6 LOR <2	0	0	0	0	0
Vsbv <2	0	0	0	0	0
<10 LOR <5	0	2	1	0	0
<20 LOR <5	0	4	6	0	0
Vsbv ≥5	6	47	41	8	1
≥50 LOR ≥5	6	41	29	4	0
NC & ≥10	6	40	28	4	0

145

22

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	0	0	0
<6 LOR <2	0	0	1	1	0
Vsbv <2	0	0	0	0	0
<10 LOR <5	1	6	6	0	0
<20 LOR <5	3	19	22	0	0
Vsbv ≥5	8	40	50	2	0
≥50 LOR ≥5	4	10	10	2	0
NC & ≥10	4	10	7	2	0

183

23

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	+	1	+	+	0
<6 LOR <2	+	1	1	1	0
Vsbv <2	0	1	1	+	0
<10 LOR <5	1	4	6	3	0
<20 LOR <5	1	12	17	7	+
Vsbv ≥5	6	36	45	10	1
≥50 LOR ≥5	4	22	21	3	+
NC & ≥10	4	20	19	3	+

947

24

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	1	1	0
<6 LOR <2	1	2	1	1	0
Vsbv <2	0	1	+	+	0
<10 LOR <5	1	6	7	3	0
<20 LOR <5	2	11	17	7	1
Vsbv ≥5	5	31	45	12	1
≥50 LOR ≥5	3	19	28	5	1
NC & ≥10	3	18	27	4	1

344

25

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	+	+	+	+	+
<6 LOR <2	+	+	3	2	2
Vsbv <2	+	1	1	+	0
<10 LOR <5	+	7	9	3	2
<20 LOR <5	2	19	19	6	3
Vsbv ≥5	3	40	41	6	2
≥50 LOR ≥5	1	18	14	1	+
NC & ≥10	1	16	13	1	+

456

29

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	+	+	+	1	0
<6 LOR <2	1	+	2	3	1
Vsbv <2	+	+	+	2	+
<10 LOR <5	1	1	5	6	1
<20 LOR <5	2	5	15	9	2
Vsbv ≥5	5	29	41	15	3
≥50 LOR ≥5	3	19	17	5	0
NC & ≥10	3	18	16	4	0

511

30

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	0	0	0
<6 LOR <2	0	0	0	0	0
Vsbv <2	0	0	0	0	0
<10 LOR <5	0	0	4	4	4
<20 LOR <5	0	4	25	13	4
Vsbv ≥5	0	13	63	17	4
≥50 LOR ≥5	0	8	21	4	0
NC & ≥10	0	8	21	4	0

24

31

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	0	18	0	0
<6 LOR <2	0	9	18	0	0
Vsbv <2	0	9	18	0	0
<10 LOR <5	0	18	18	0	0
<20 LOR <5	0	18	18	0	0
Vsbv ≥5	0	36	36	0	0
≥50 LOR ≥5	0	9	9	0	0
NC & ≥10	0	9	9	0	0

11

32

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	1	0	0
<6 LOR <2	0	3	3	3	0
Vsbv <2	0	0	0	2	0
<10 LOR <5	7	13	7	5	0
<20 LOR <5	7	16	12	7	1
Vsbv ≥5	9	41	29	11	2
≥50 LOR ≥5	3	13	16	4	1
NC & ≥10	3	12	13	4	1

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33

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	3	3	+
<6 LOR <2	0	2	4	4	1
Vsbv <2	0	2	1	3	+
<10 LOR <5	0	3	8	5	1
<20 LOR <5	+	5	13	17	4
Vsbv ≥5	1	12	37	32	5
≥50 LOR ≥5	+	4	8	5	0
NC & ≥10	+	4	8	5	0

224

34

WIND SPEED (KNOTS)

LCC - Vsbv	0-3	4-10	11-21	22-34	≥35
<1.5 LOR <5	0	1	3	3	+
<6 LOR <2	0	2	4	4	1
Vsbv <2	0	2	1	3	+
<10 LOR <5	0	3	8	5	1
<20 LOR <5	+	5	13	17	4
Vsbv ≥5	1	12	37	32	5
≥50 LOR ≥5	+	4	8	5	0
NC & ≥10	+	4	8	5	0

224

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

-VISIBILITY-WIND

FEBRUARY

visibility (V_{by}) in nautical

clouds (h) when low cloud amount

cloud ceiling <1000 feet and/or

occurrences of N_h <5/8.

5 nm and Wind 11-21 kts.

conditions: LCC <300 ft.

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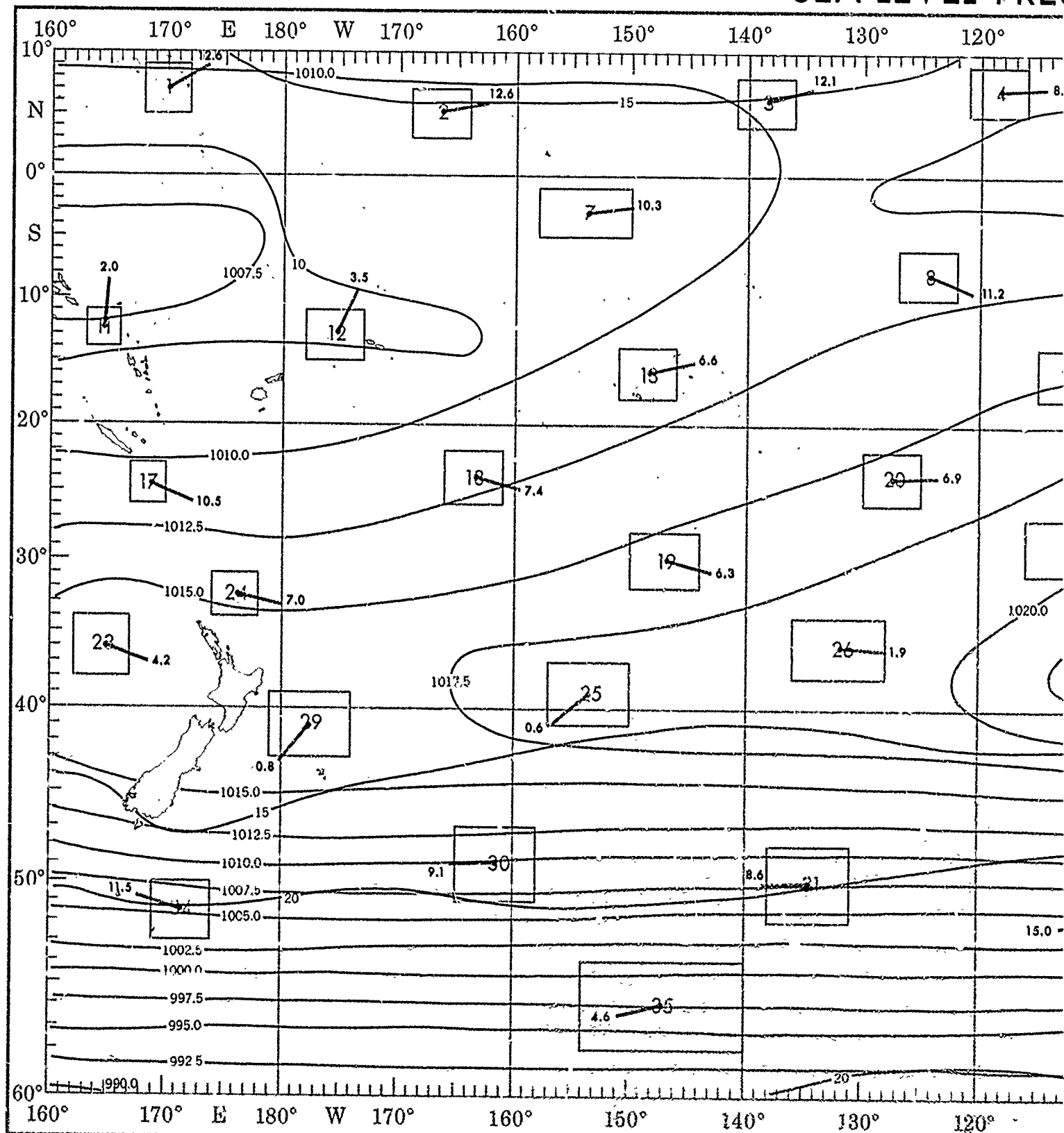
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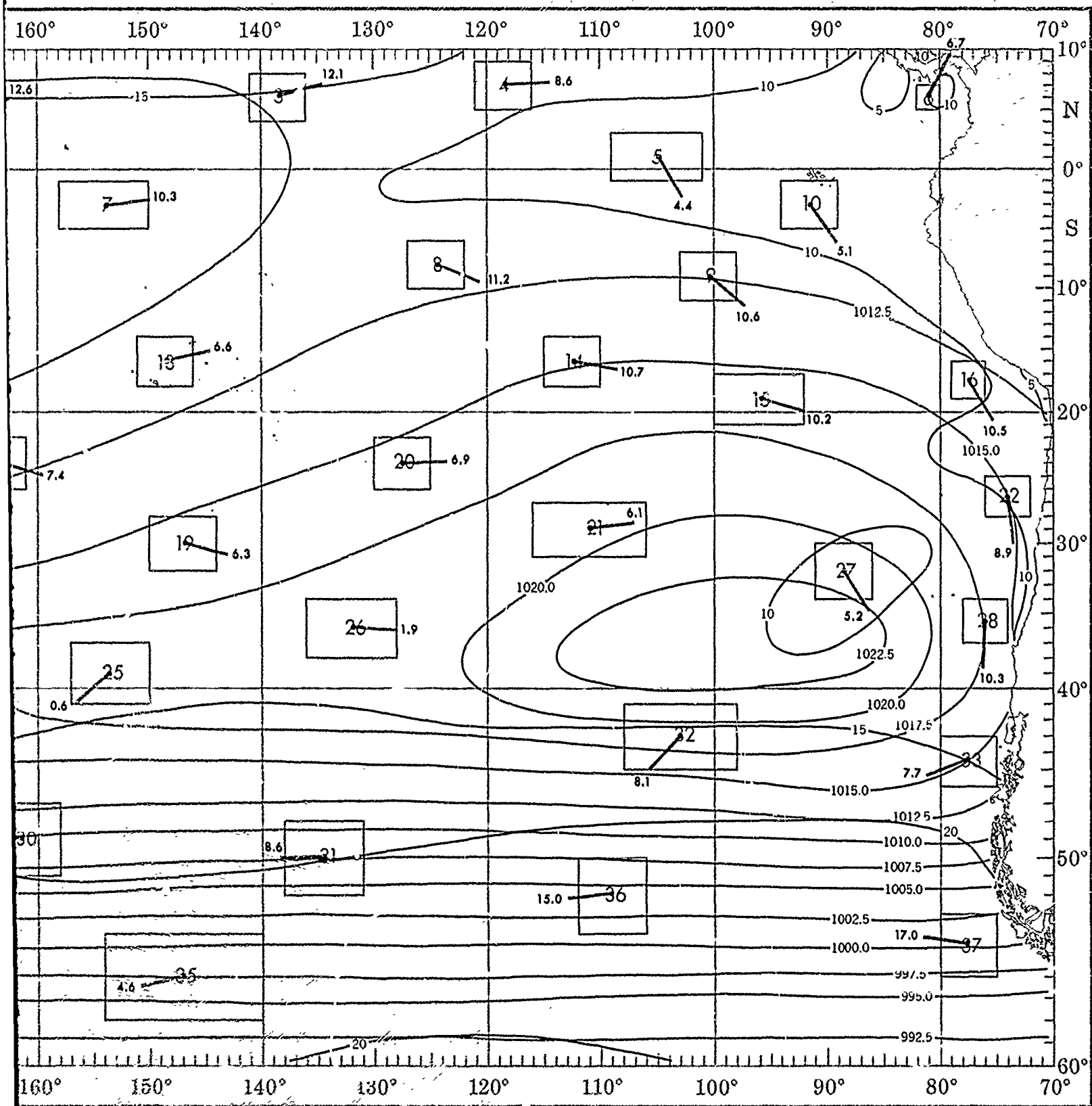
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FEBRUARY

SEA LEVEL PRESS

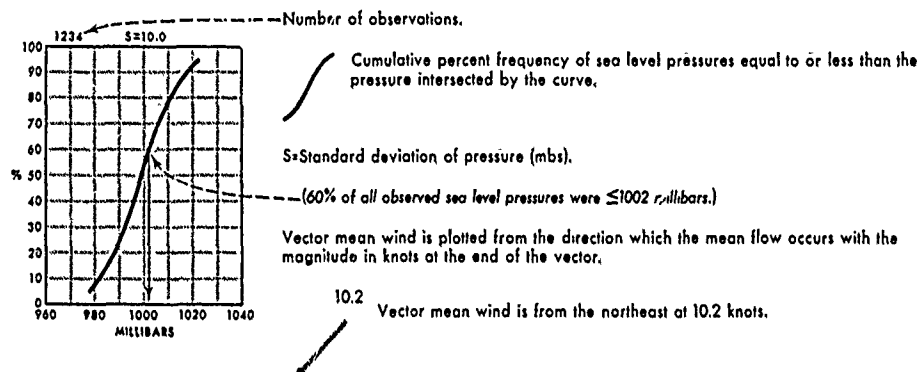


SEA LEVEL PRESSURE AND MEAN WIND



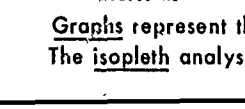
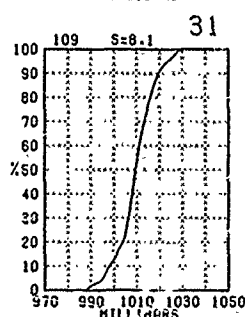
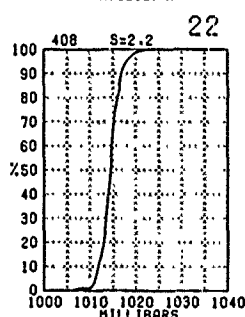
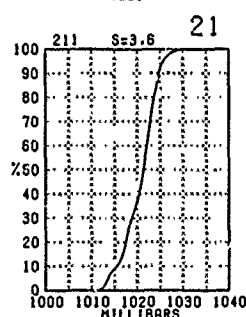
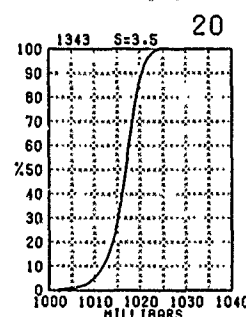
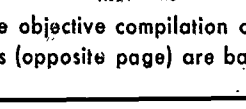
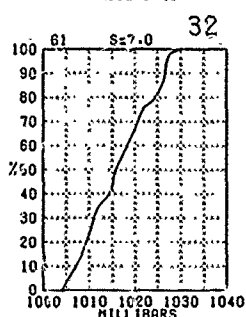
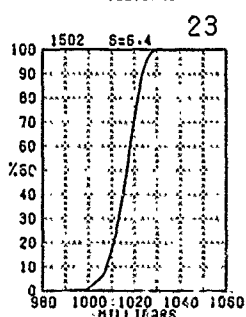
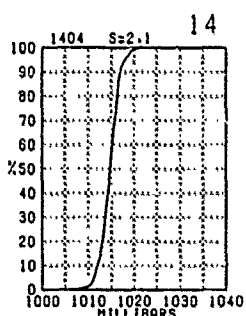
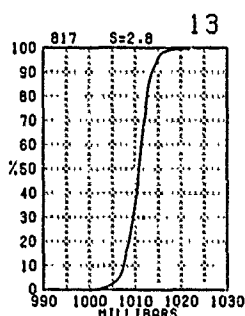
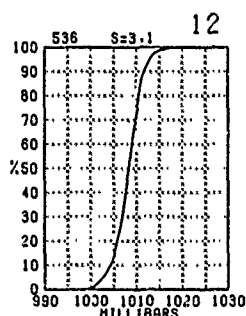
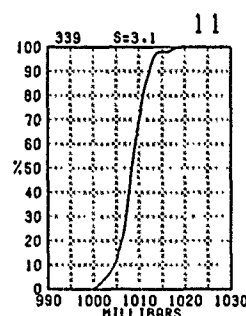
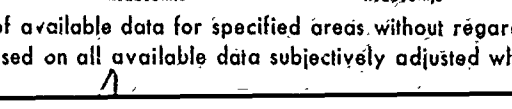
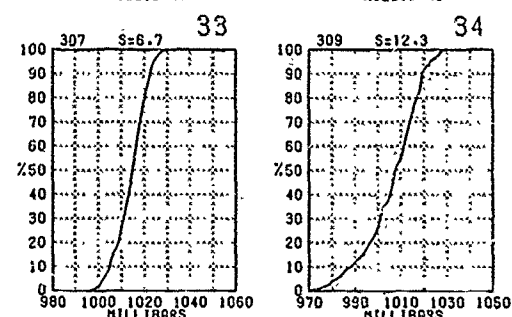
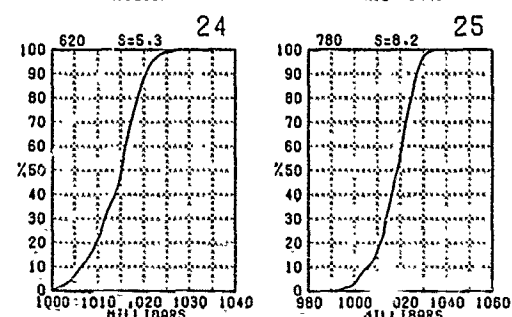
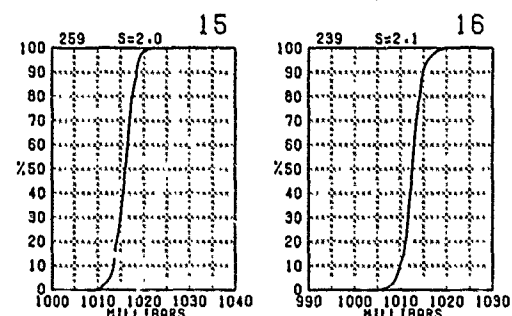
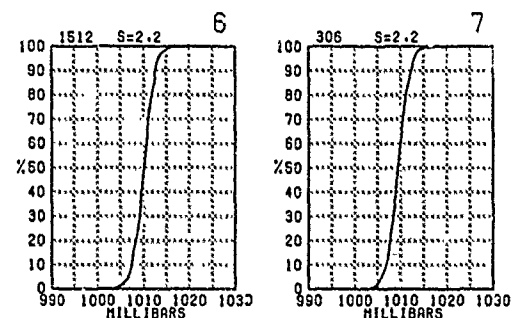
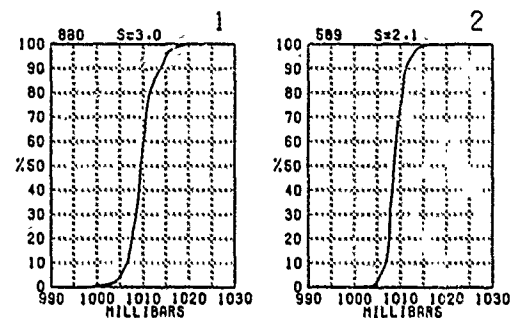
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



BLUE LINE • Scalar mean wind speed (kts.)

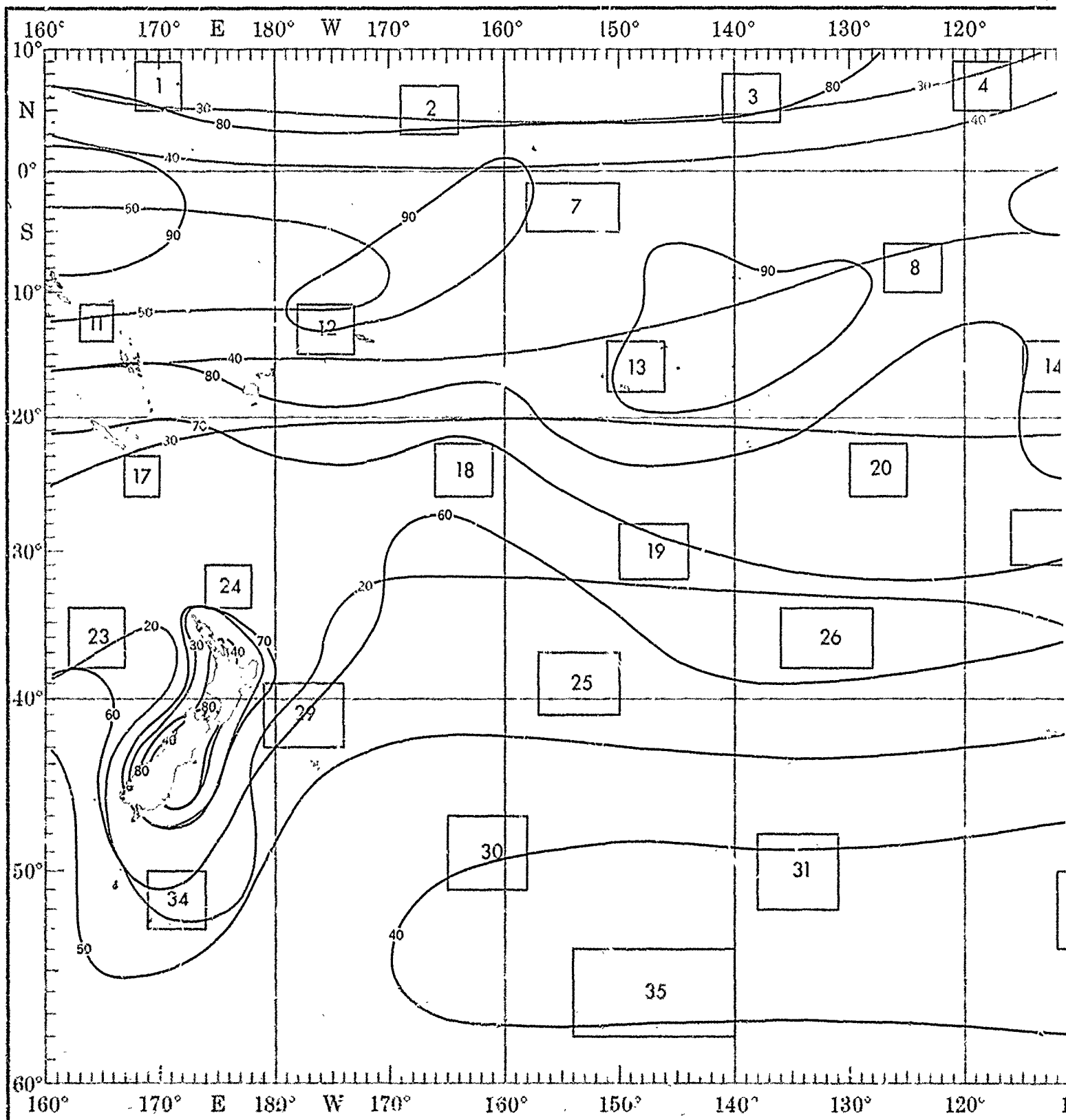
RED LINE • Mean sea level pressure (mbs.)



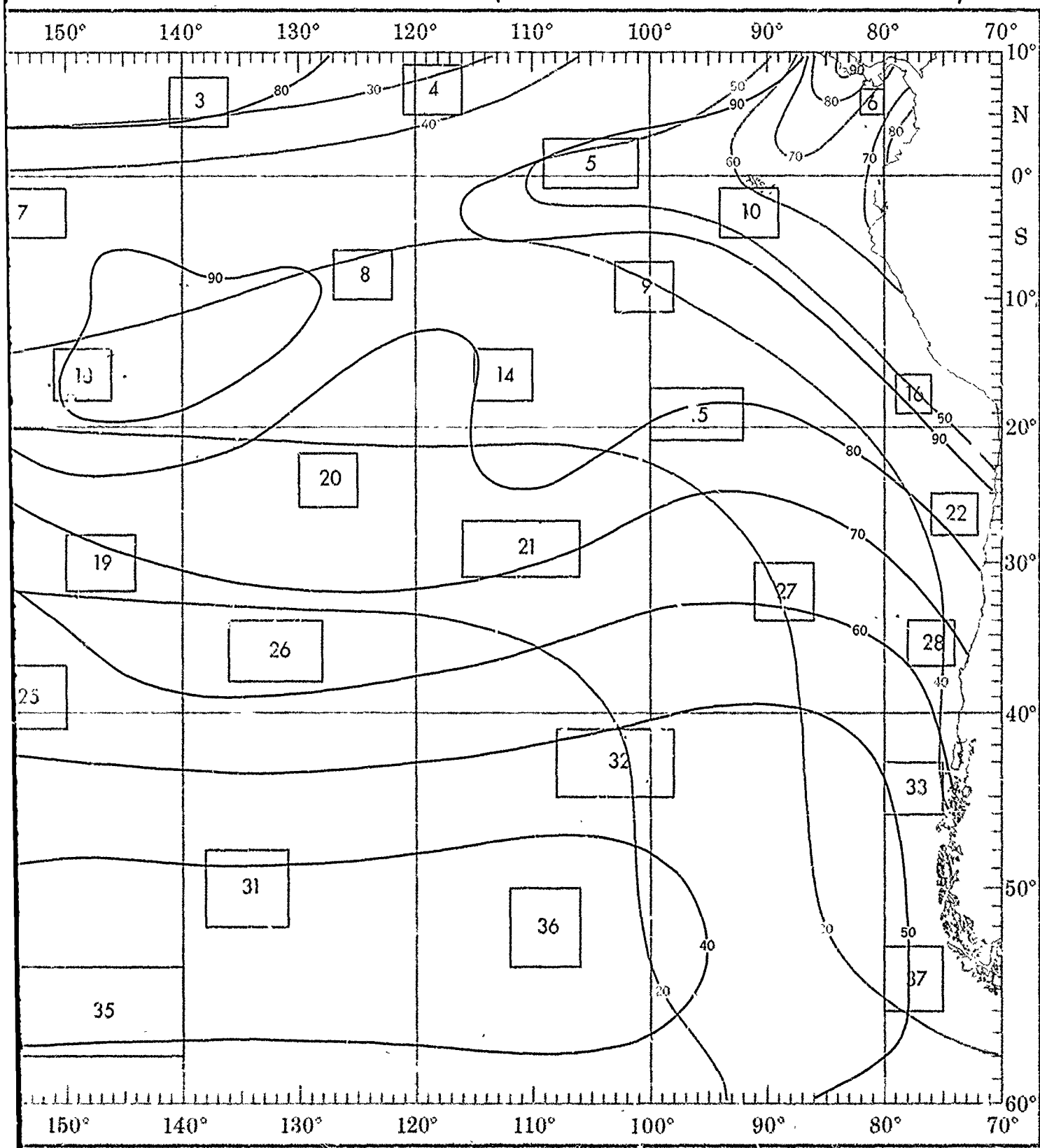
Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

FEBRUARY

WAVES (



WAVES (<1.5 AND <2.5 METERS)



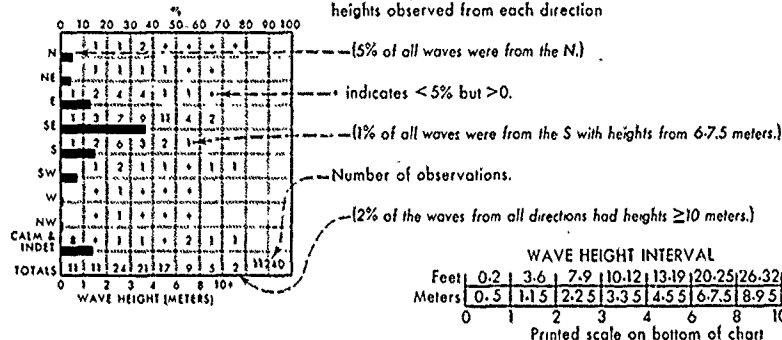
1 1 2

WAVE DIRECTION AND HEIGHT

Wave direction and height.

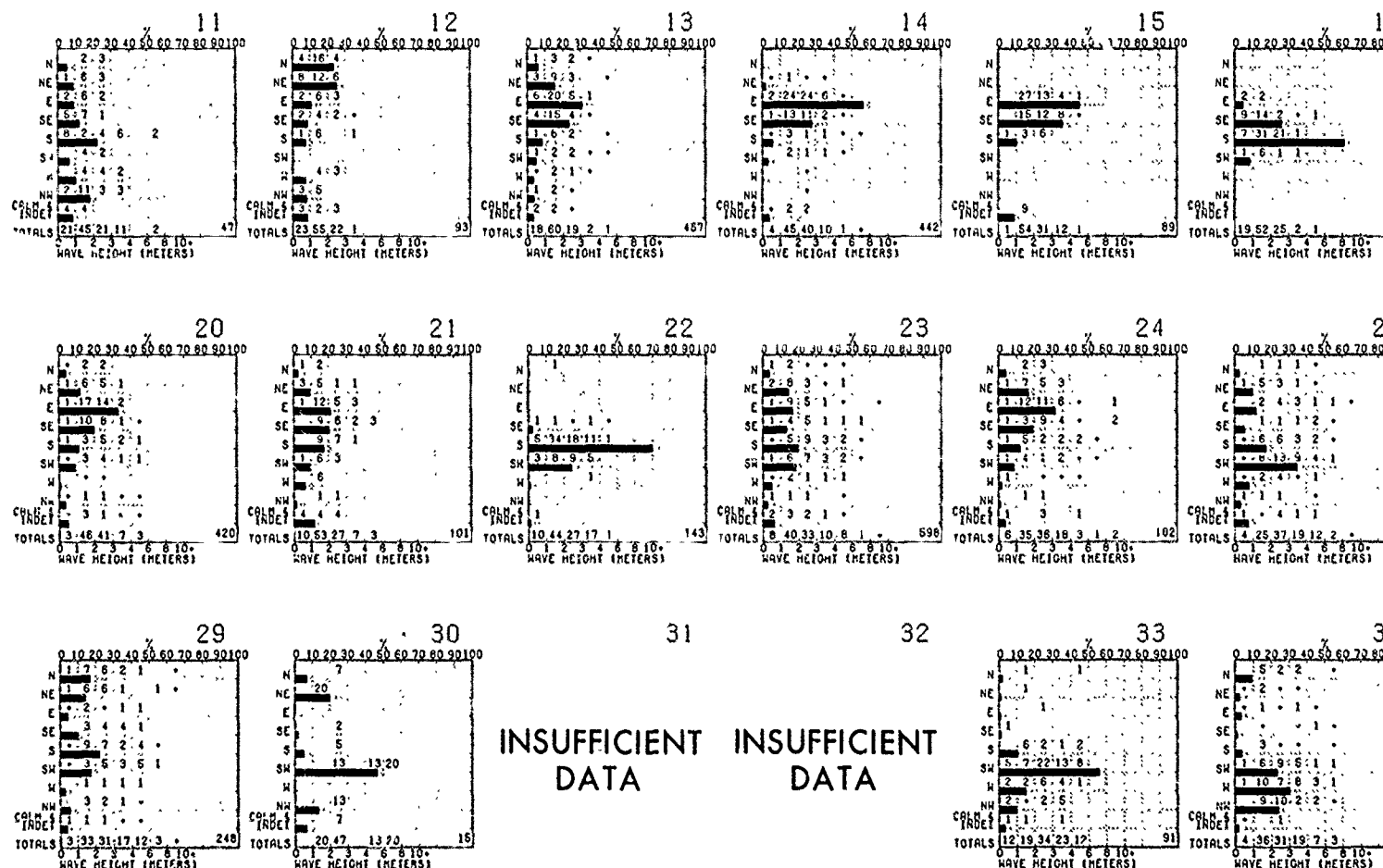
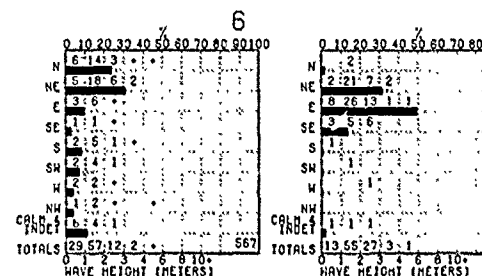
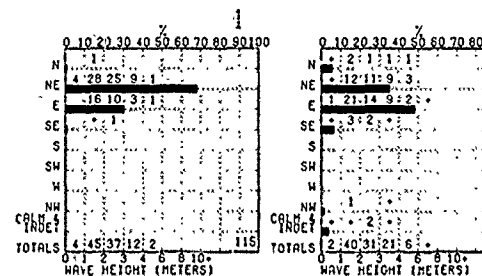
Direction frequency (top scale) Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE - Percent frequency of wave height <1.5 meters (5 feet)

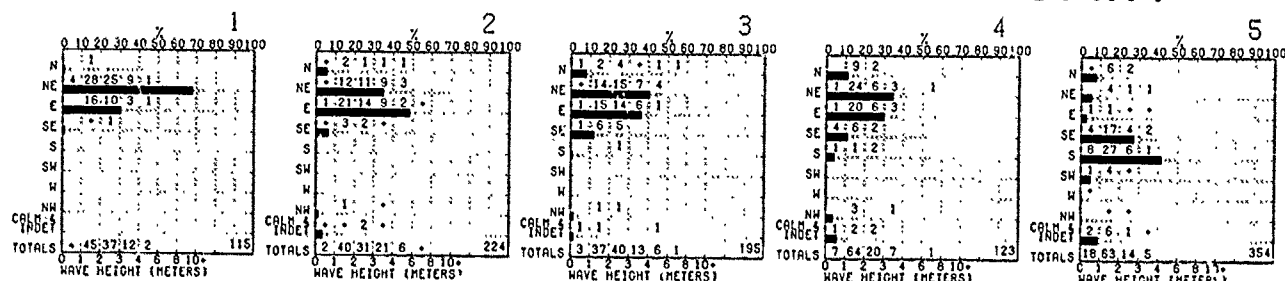
RED LINE - Percent frequency of wave height <2.5 meters (8 feet)



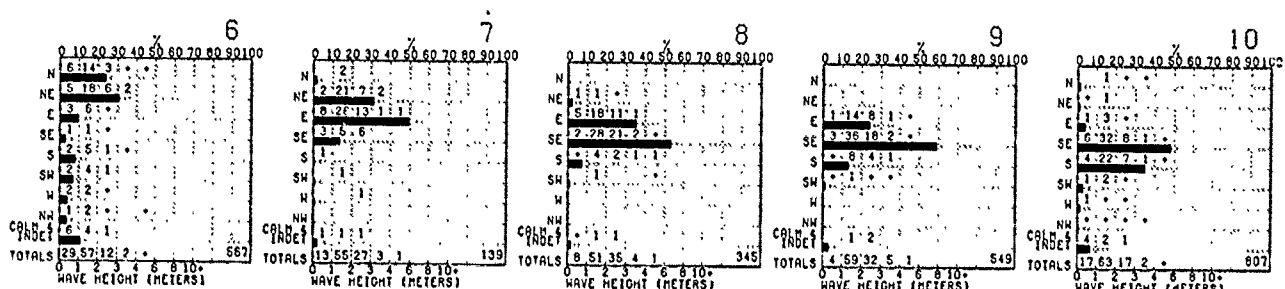
Graphs represent the objective compilation of available data for specified areas without reg. The isopleth analyses (opposite page) are based on all available data subjectively adjusted

FEBRUARY

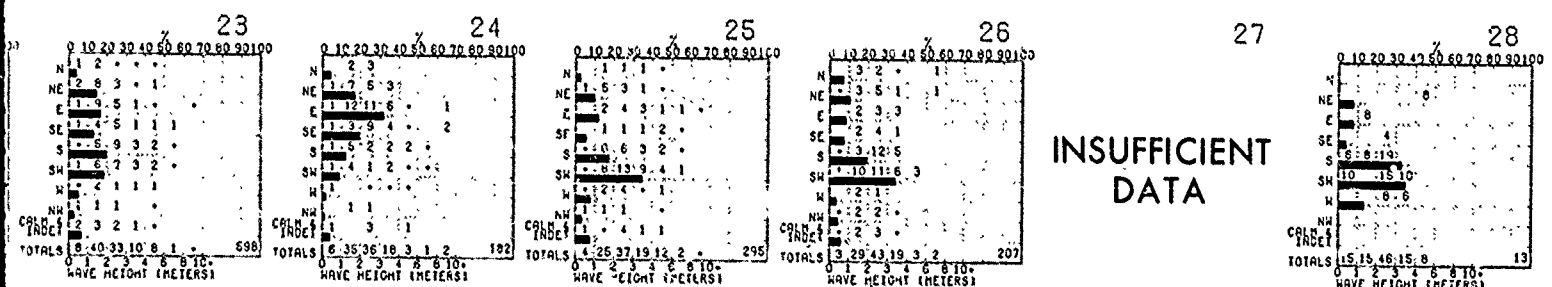
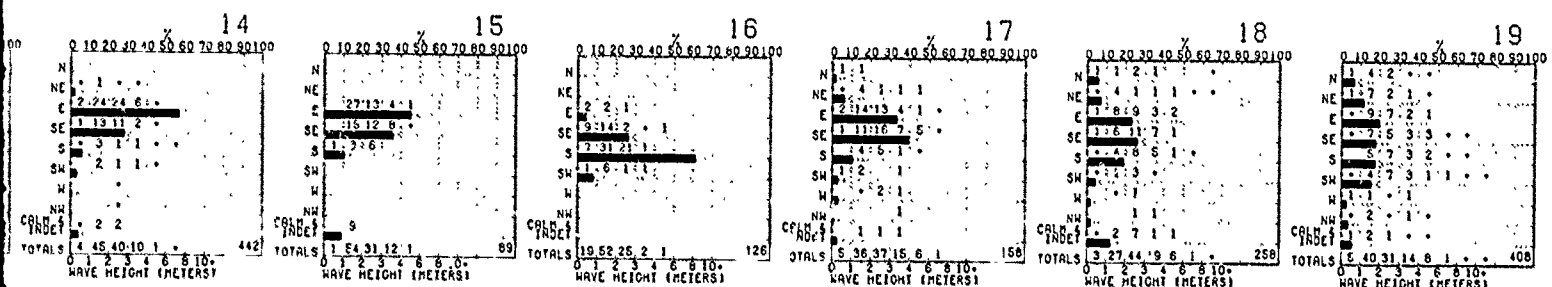
percent frequency of wave



eters)



6 32	≥ 33
9 5	≥ 10
10	



INSUFFICIENT
DATA

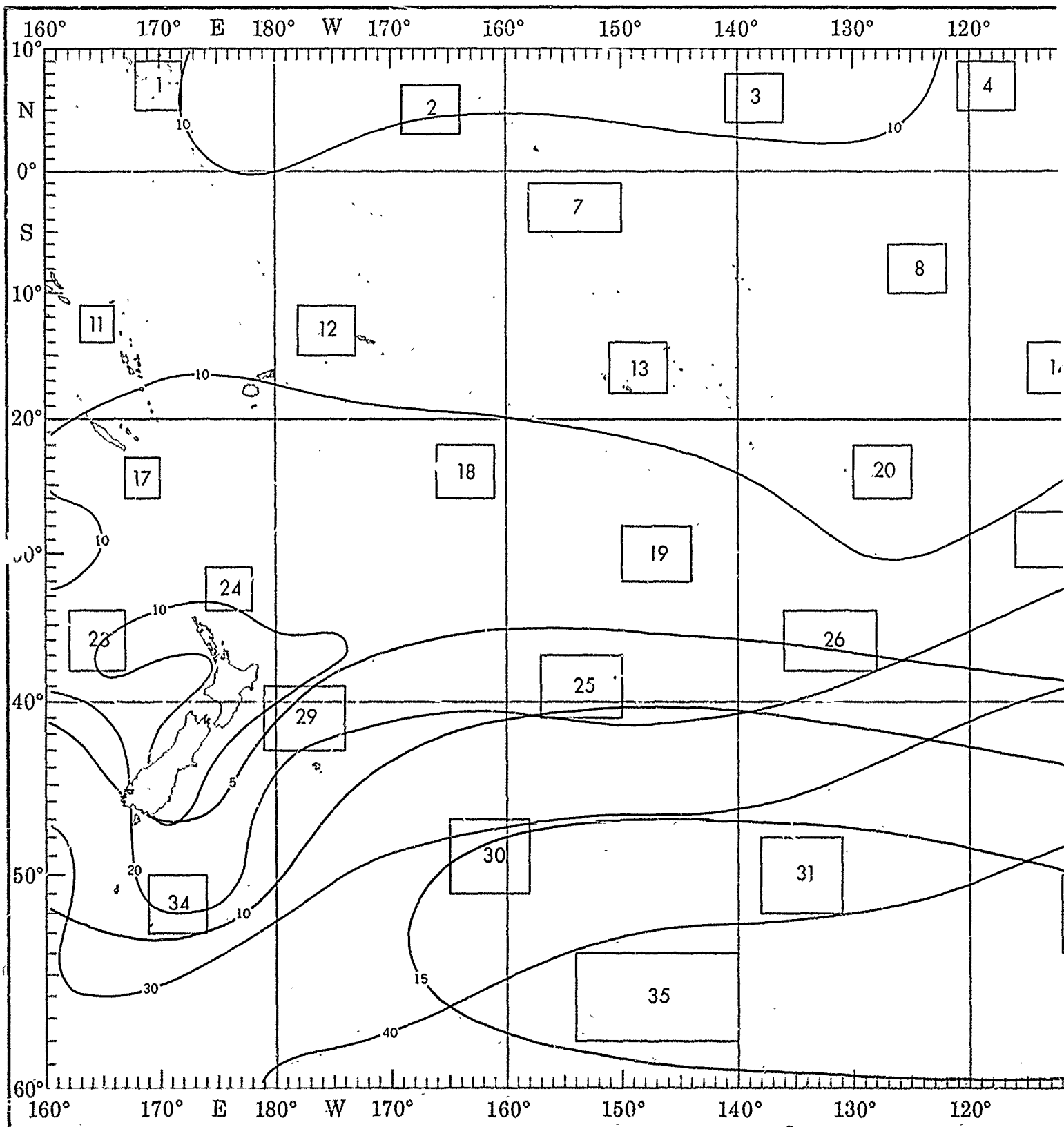
INSUFFICIENT
DATA

INSUFFICIENT
DATA

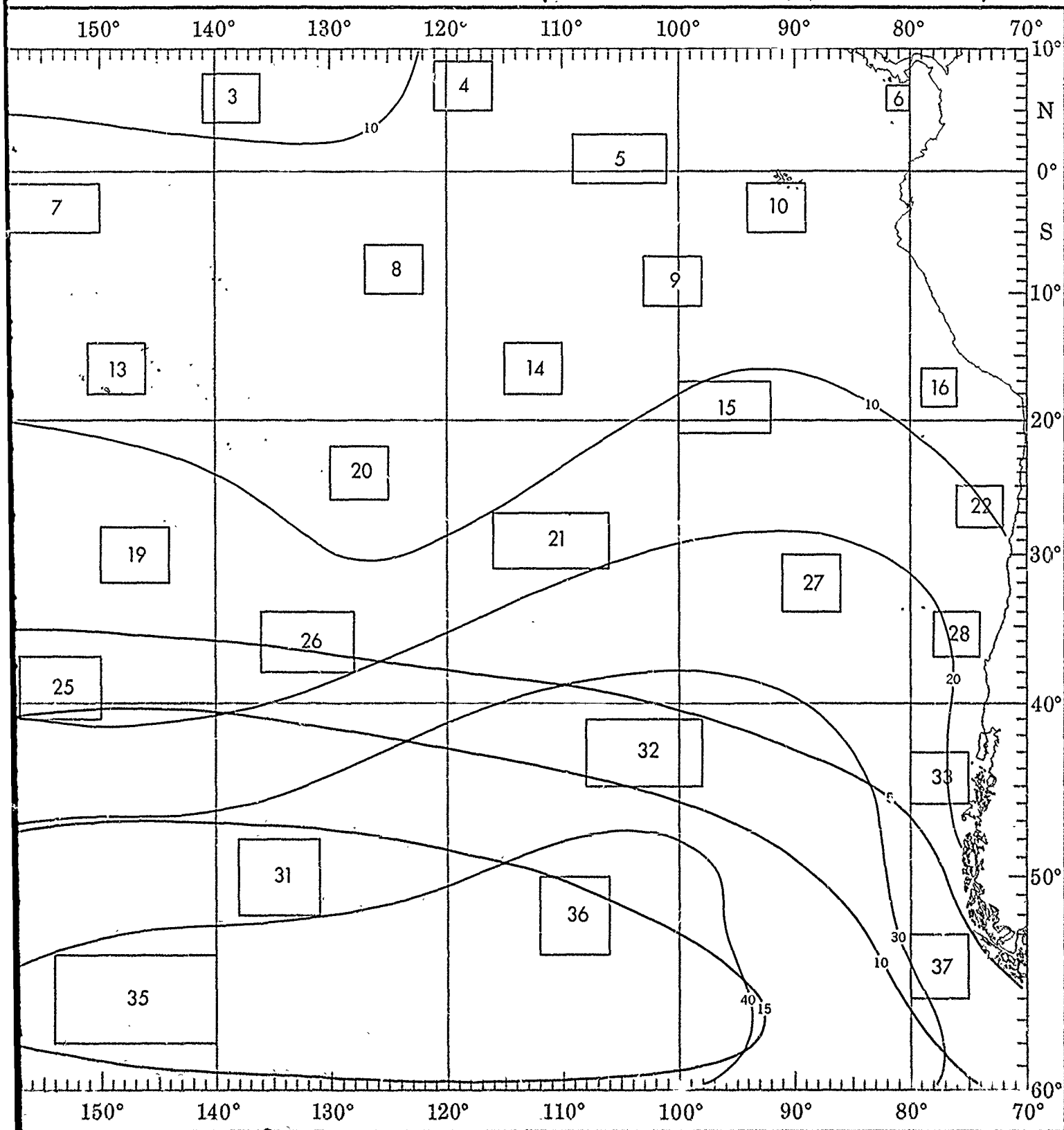
The objective compilation of available data for specified areas without regard to suspected biases. The estimates (opposite page) are based on all available data subjectively adjusted where bias was evident.

FEBRUARY

WAVES



WAVES (≥ 3.5 AND ≥ 6 METERS)



1 1 2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

[illegible]

—(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

· indicates $<.5\%$ but >0 .

-Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

PERIOD (SECONDS)								
HEIGHT (INCHES)	<6	6-7	8-9	10-11	12-13	>13	TMD	
0-0.5	7	1	0	0	0	0	0	
1-1.5	15	16	5	3	3	2	0	
2-2.5	5	21	8	0	1	1	0	
3-3.5	0	4	2	6	0	0	0	
4-4.5	0	0	1	0	1	0	0	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
≥10	0	0	0	0	0	0	0	
119								

PERIOD (SECONDS)								
HEIGHT (INCHES)	<6	6-7	8-9	10-11	12-13	>13	TMD	
0-0.5	2	+	0	0	0	0	+	
1-1.5	12	21	3	1	0	0	2	
2-2.5	5	13	8	2	0	1	1	
3-3.5	4	8	7	+	1	+	+	
4-4.5	1	1	1	1	1	+	0	
5-5.5	0	+	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
≥10	0	0	0	0	0	0	0	
226								

	PERIOD (SECONDS)										
HEIGHT (INCHES)	<6	6-7	8-9	10-11	12-13	>13	IND				
0-0.5	21	2	1	1	0	0	6				
1-1.5	28	13	5	1	2	1	5				
2-2.5	5	4	1	1	+	1	1				
3-3.5	1	1	1	+	0	0	0				
4-4.5	0	0	+	0	0	0	0				
5-7.5	0	0	0	0	0	0	0				
8-9.5	0	0	0	0	0	0	0				
>10	0	0	0	0	0	0	0				

SA7

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE = Percent frequency of wave height ≥ 6 meters (20 feet)

Figure 1 displays a grid of 16 tables, each showing a height (inches) versus period (seconds) relationship for a specific table number (11-34). The tables are arranged in a 4x4 grid. Each table has a header row for 'PERIOD (SECONDS)' with values 0, 7, 8, 11, 12, 13, 14, 15, 16. The y-axis is 'HEIGHT (INCHES)' with values 0-0.6, 1-1.6, 2-2.6, 3-3.6, 4-4.6, 5-5.6, 6-6.6, 7-7.6, 8-8.6, 9-9.6, 10-10.6, 11-11.6, 12-12.6, 13-13.6, 14-14.6, 15-15.6, 16-16.6. The data is presented in a grid format with values ranging from 0 to 16. The tables are arranged in a 4x4 grid, with the first row containing tables 11-14, the second row 15-18, the third row 19-22, and the fourth row 23-26. The tables are labeled with their respective numbers (11-34) in the top right corner.

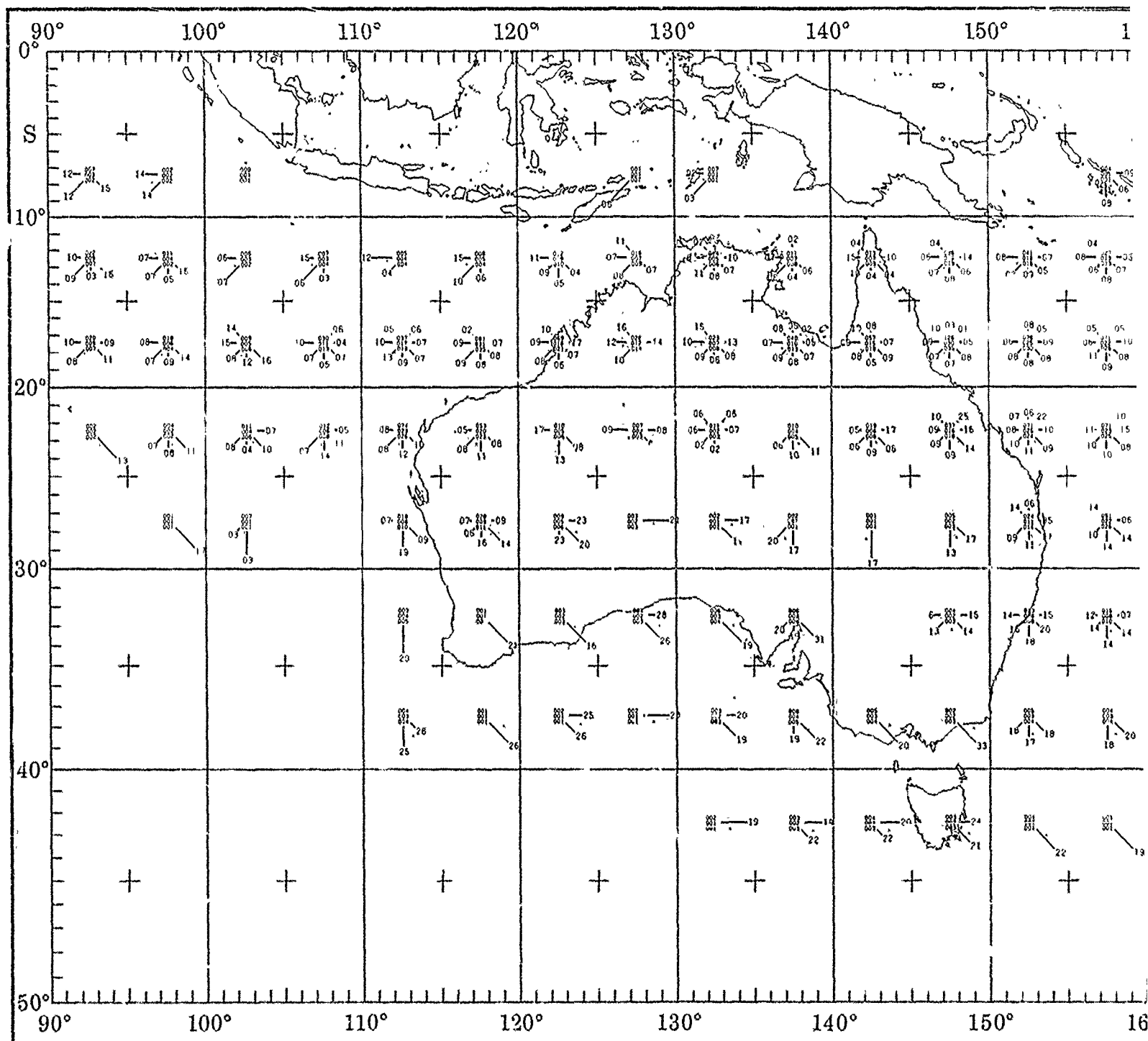
INSUFFICIENT DATA INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

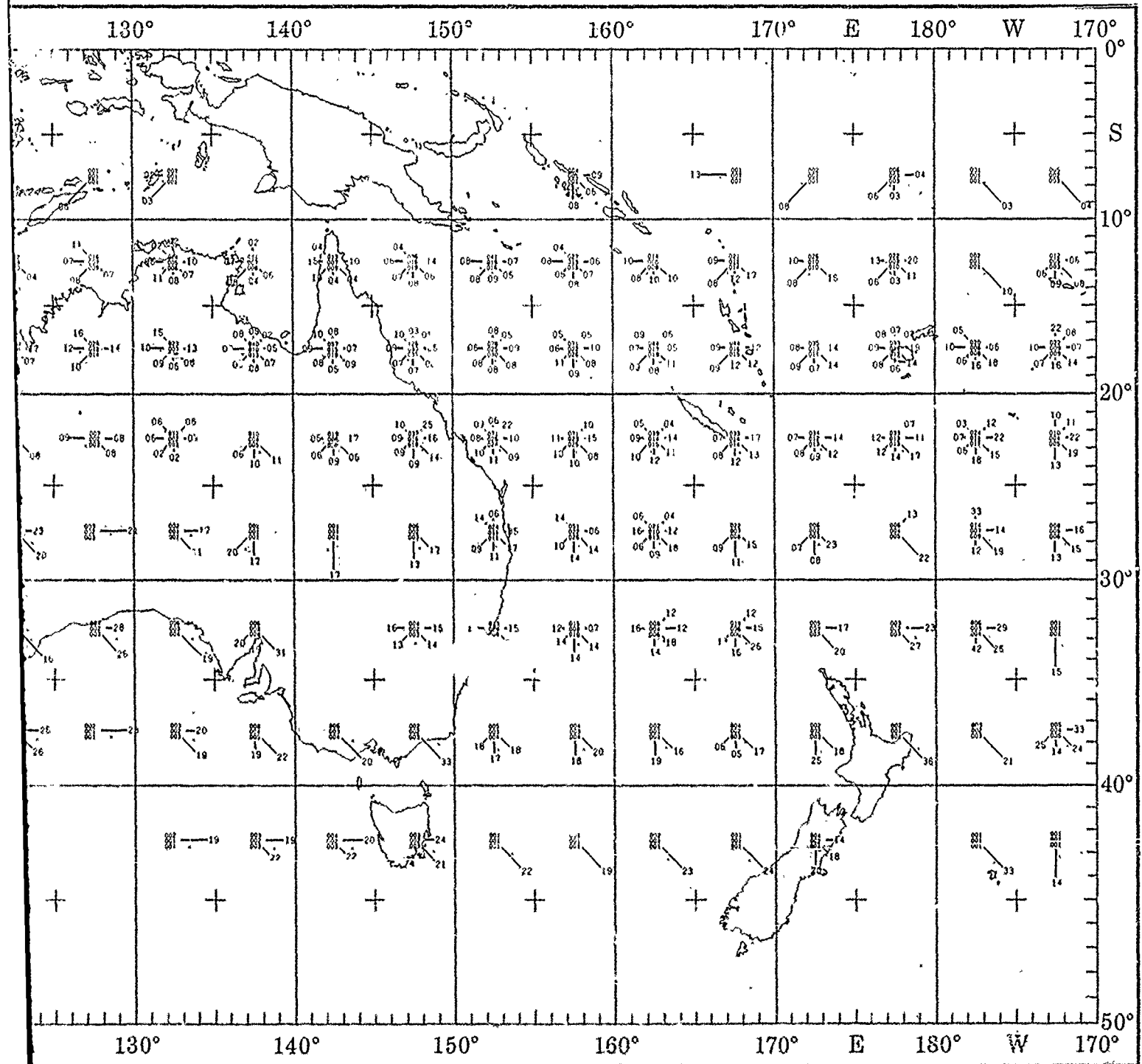
both are reported if both

55

FEBRUARY



TROPICAL CYCLONE

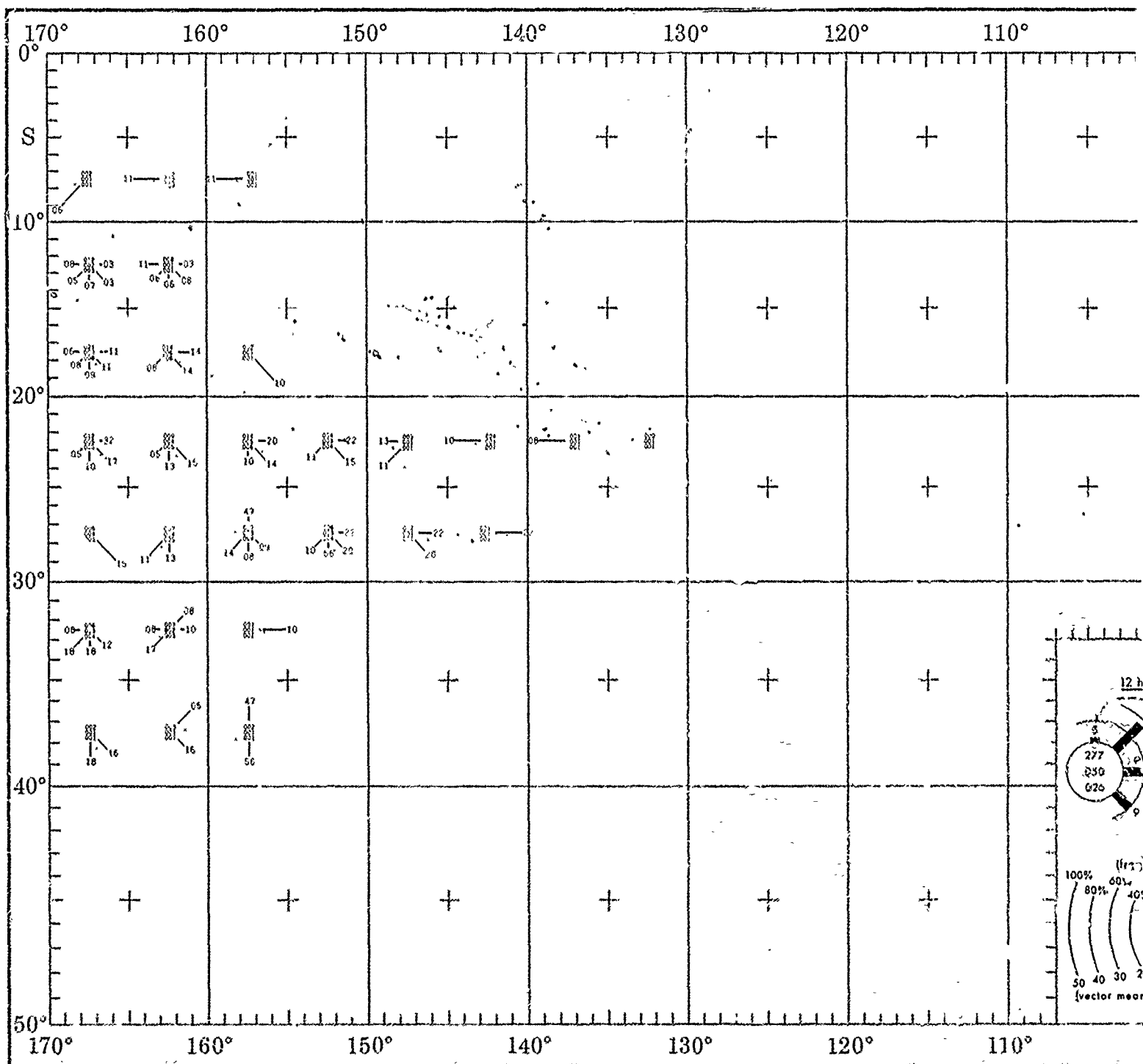


1

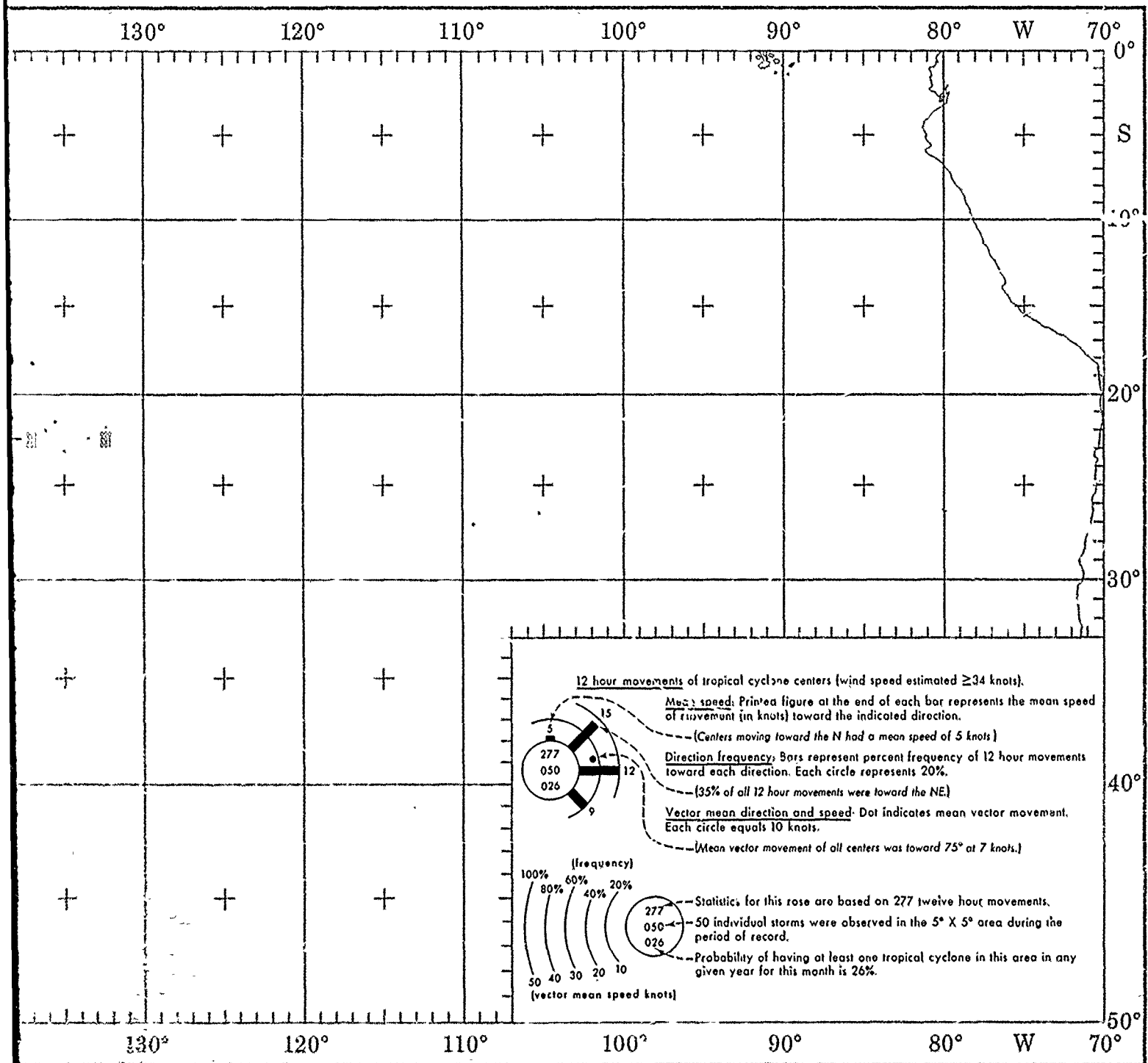
1

2

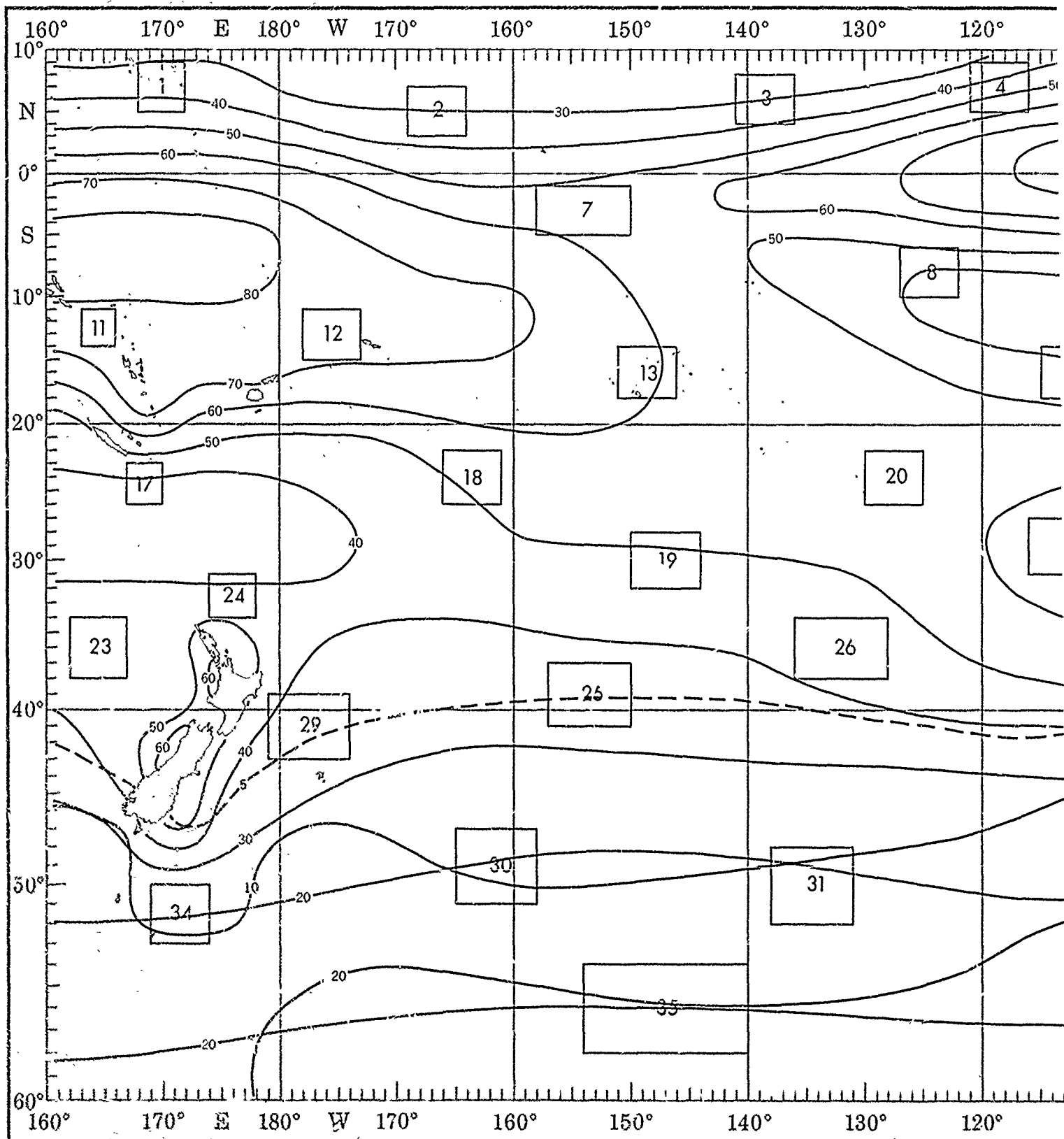
TROPICAL CYCLONE



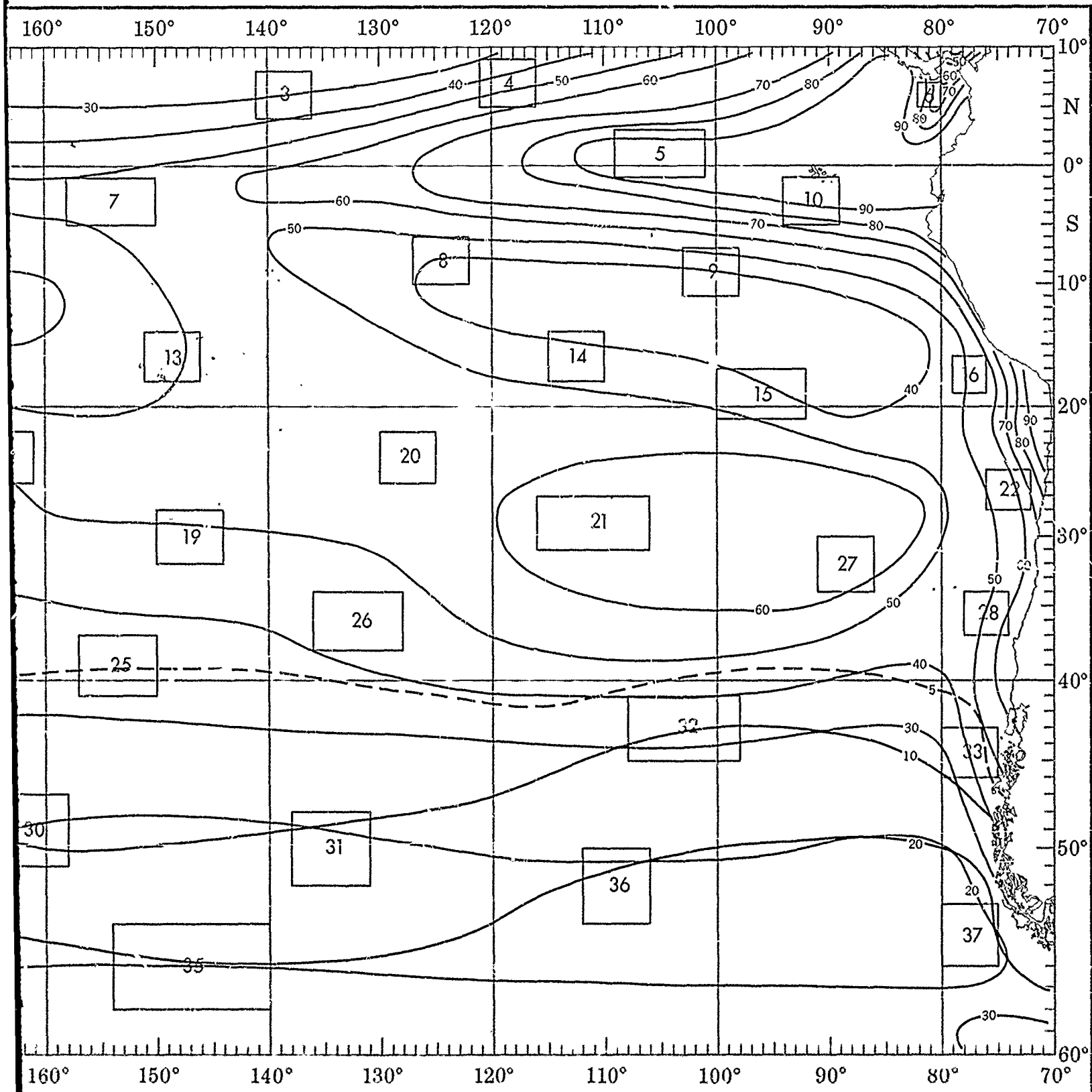
FEBRUARY



MARCH



SURFACE WINDS



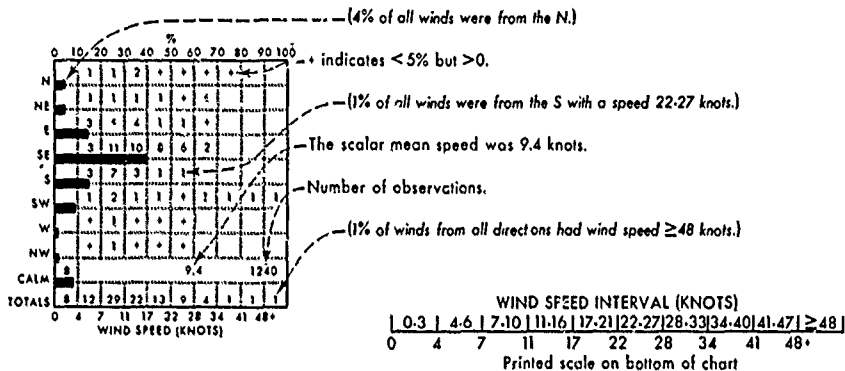
1

1

2

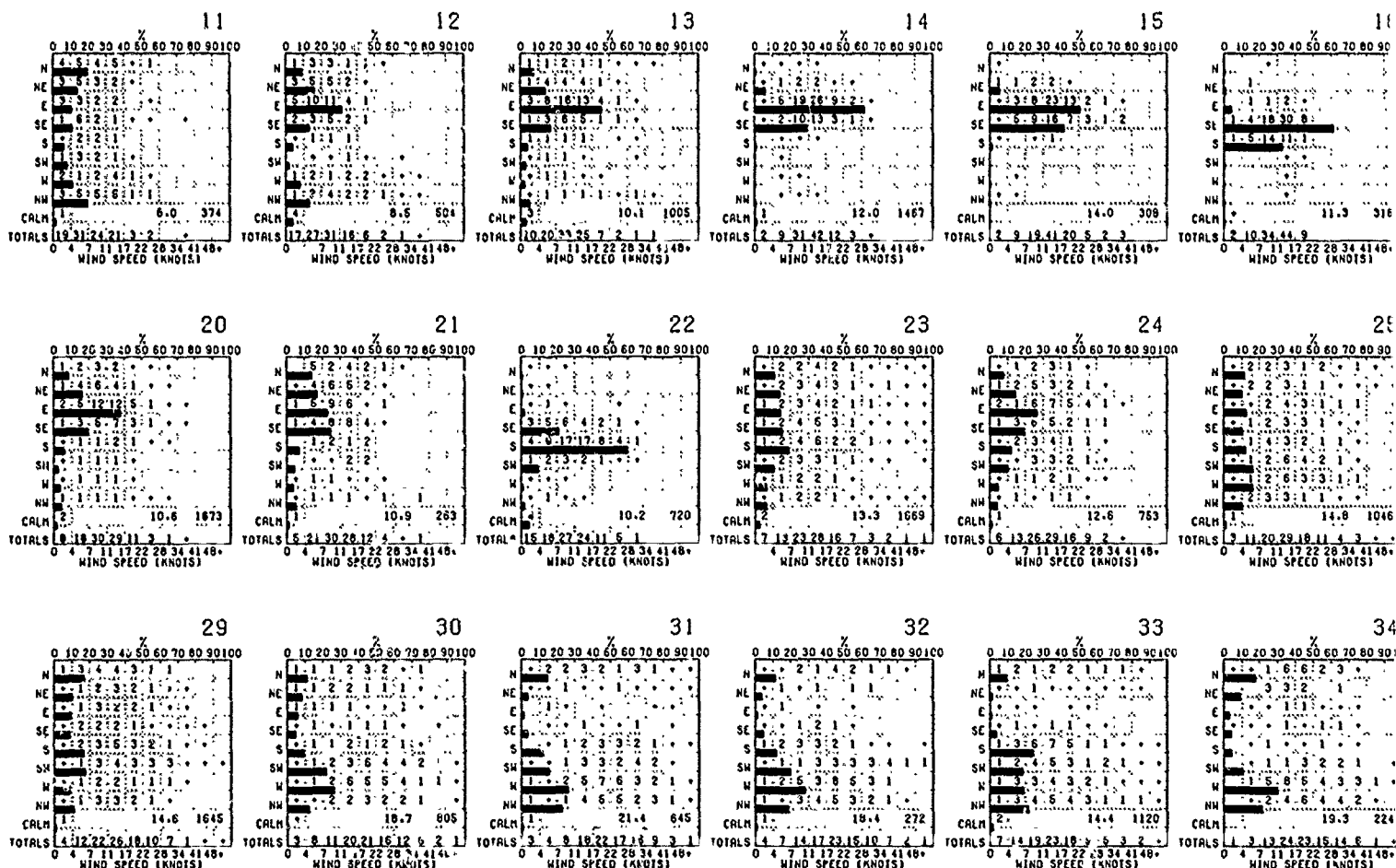
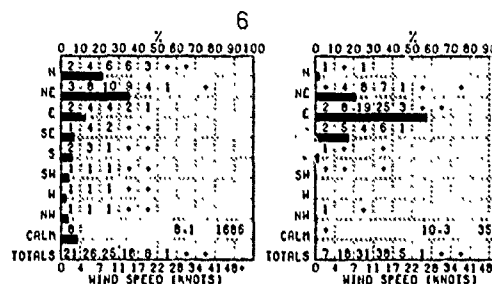
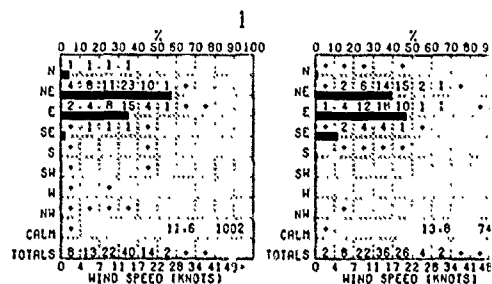
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

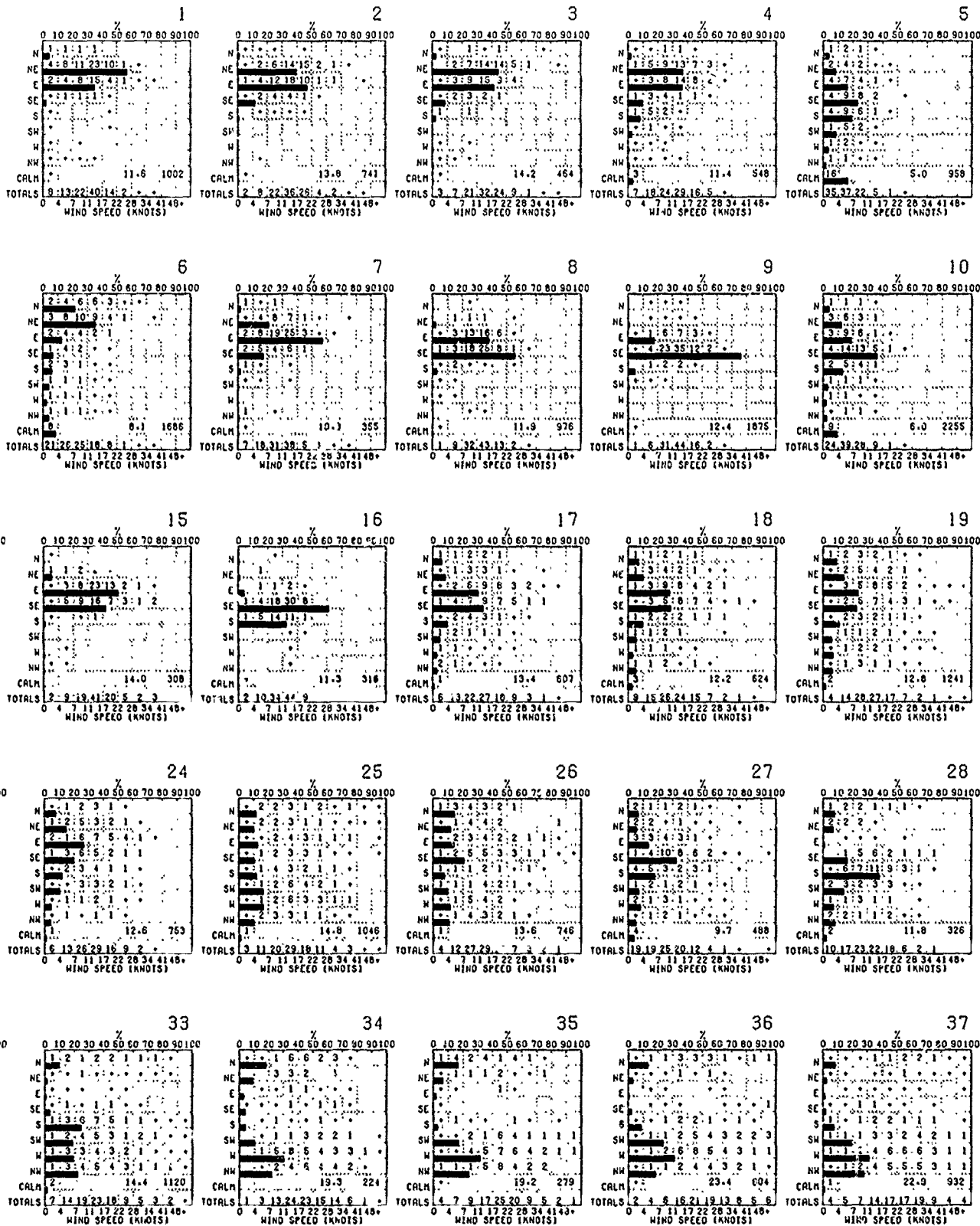


Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted w

SPEED

MARCH

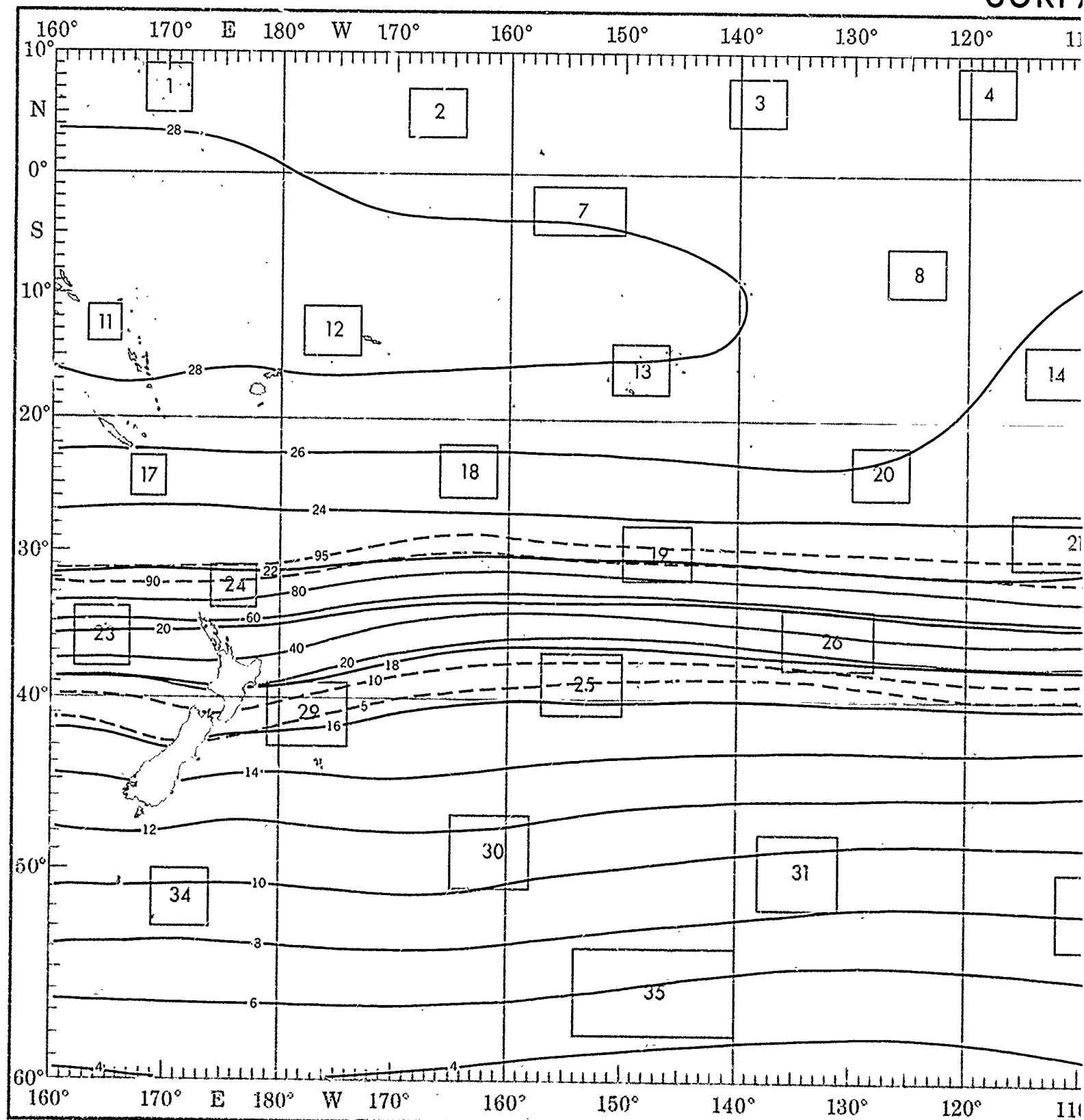
ection Speed frequency
ection.



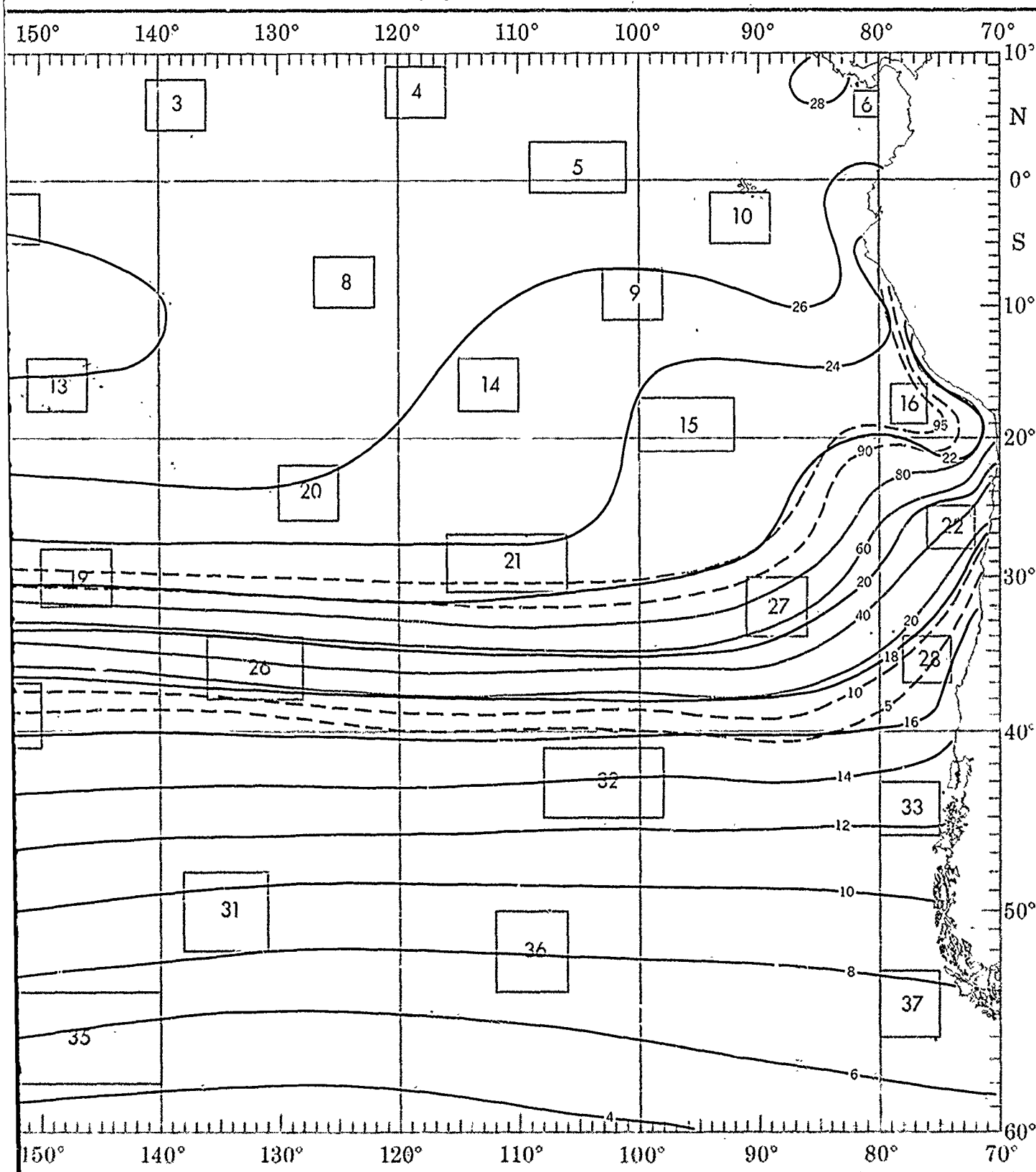
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

MARCH

SURF



SURFACE AIR TEMPERATURE

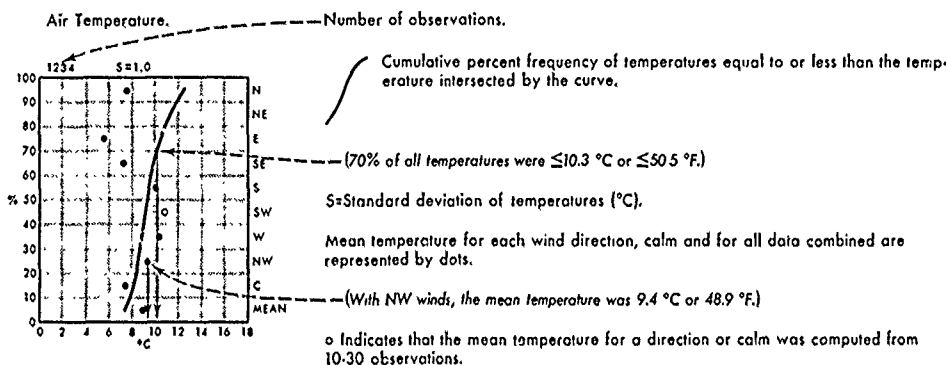


2

1

2

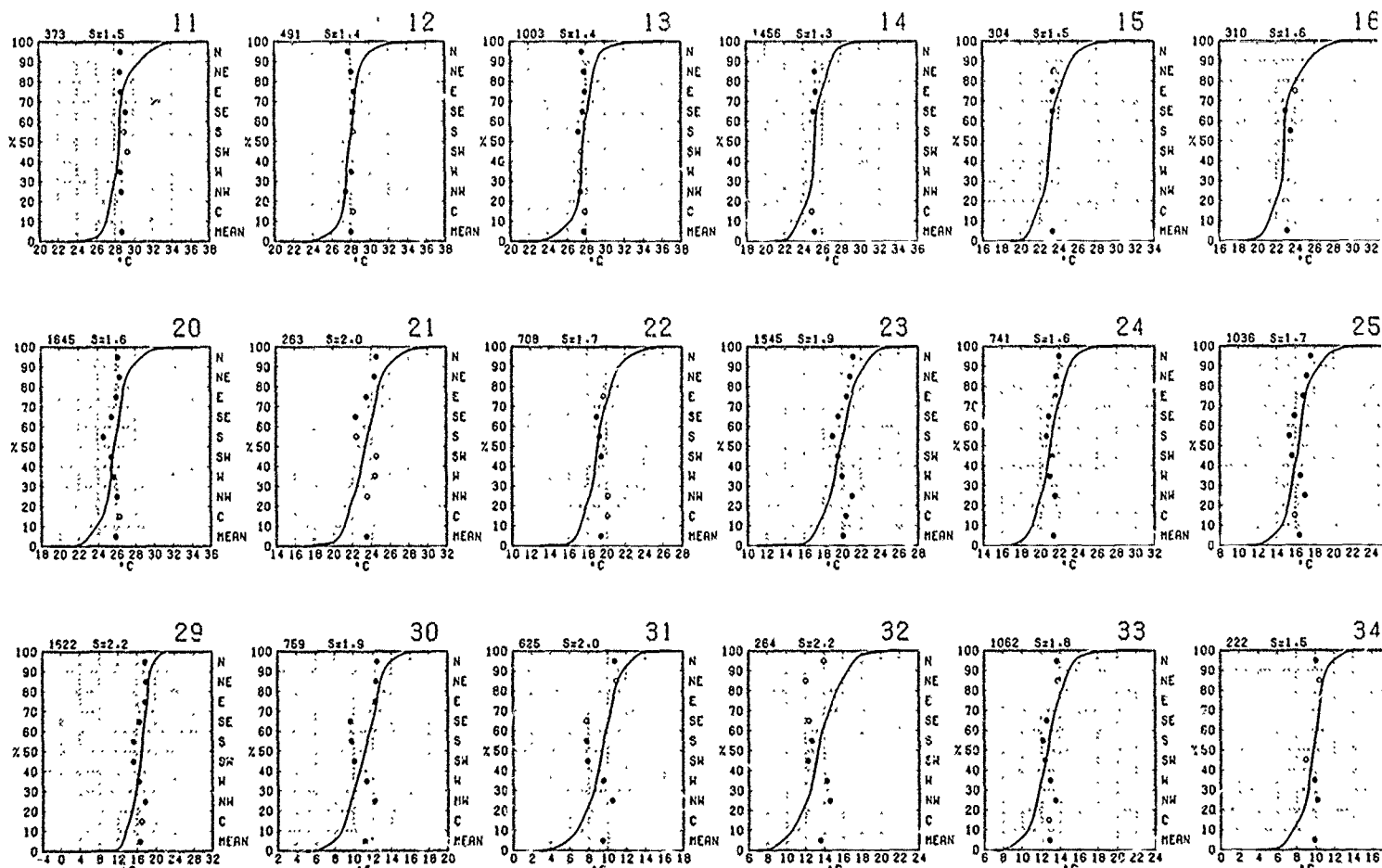
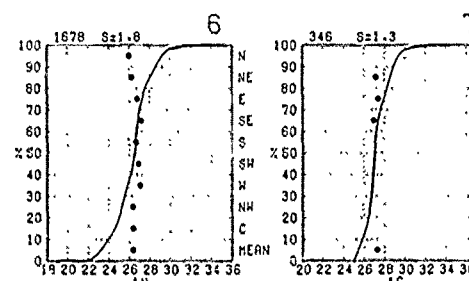
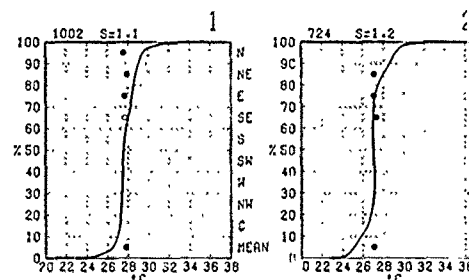
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature (°C)

RED LINE - Percent frequency of temperature ≥ 20 °C (68 °F)



Graphs represent the objective compilation of available data for specified areas without re
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

ATURE

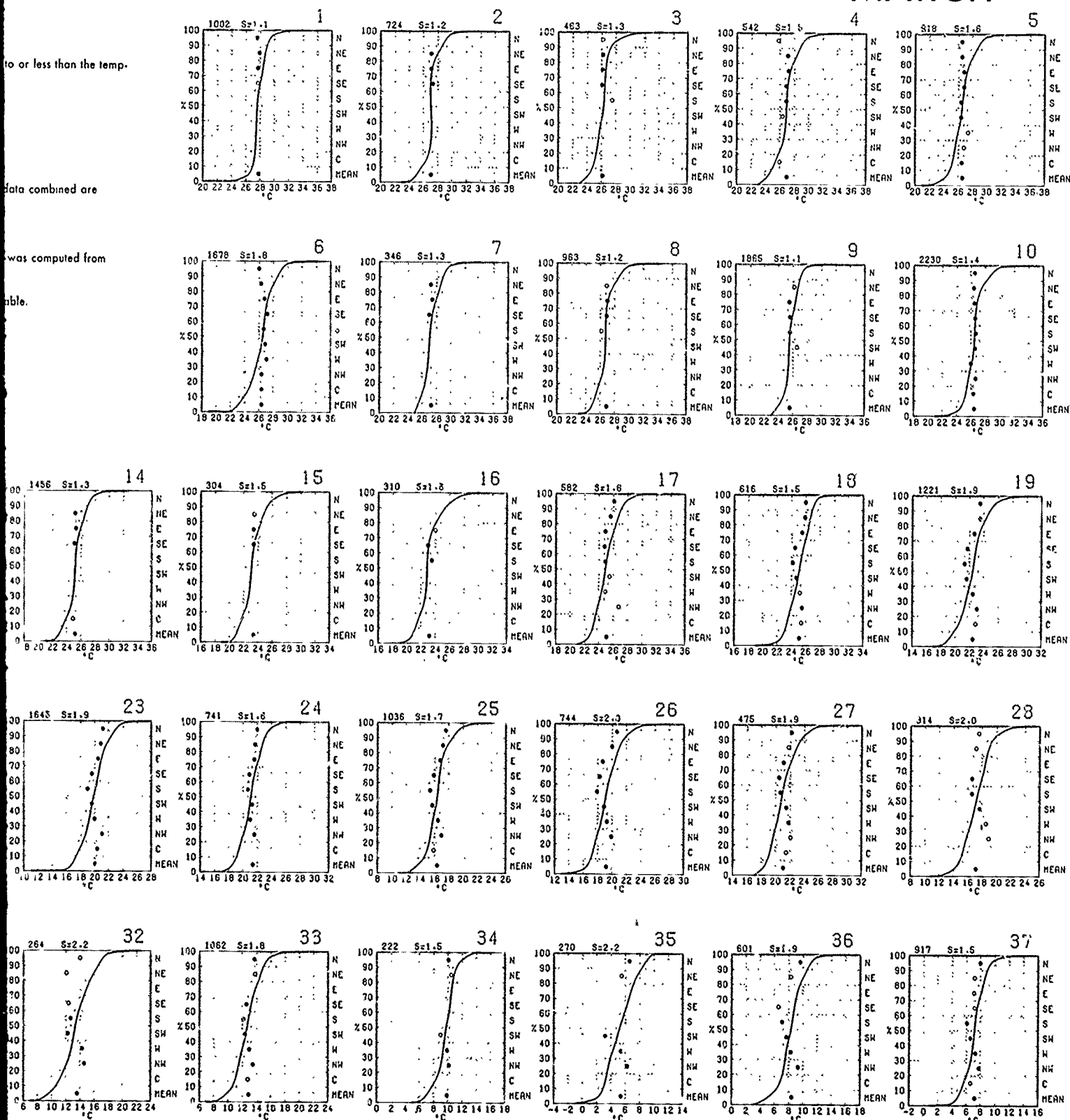
MARCH

to or less than the temp.

data combined are

was computed from

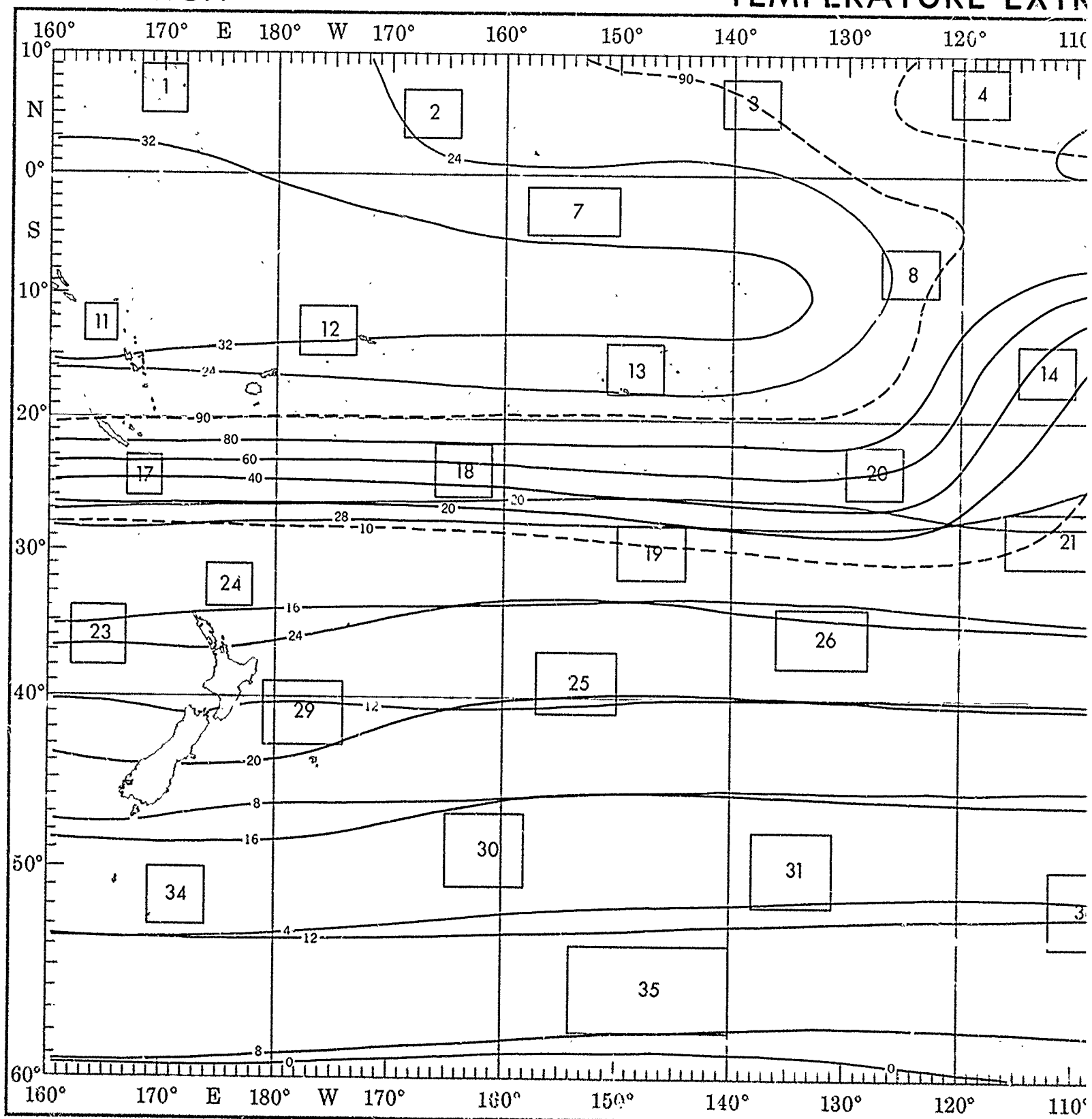
able.



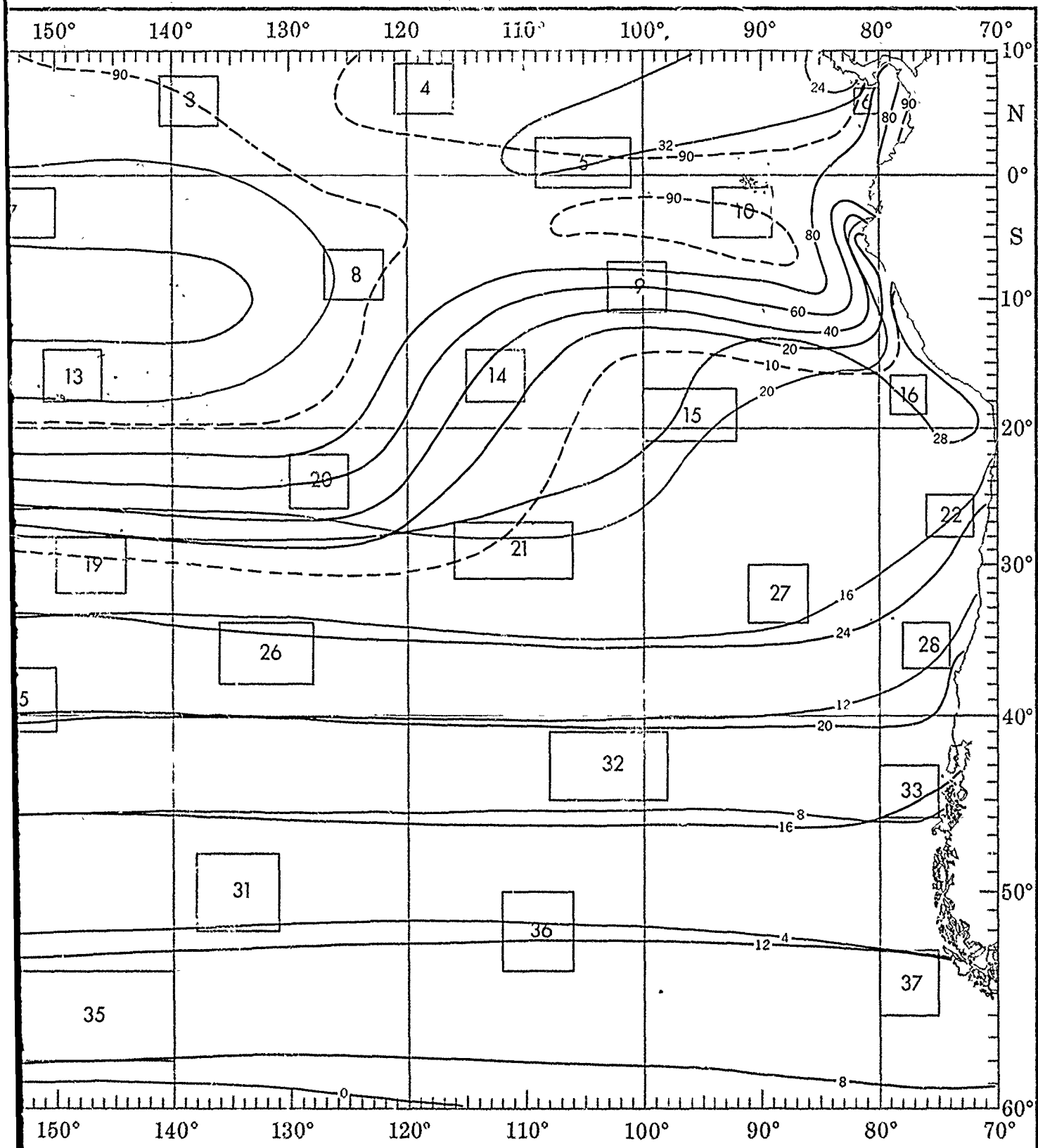
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

MARCH

TEMPERATURE EXTR



TEMPERATURE EXTREMES AND T-H INDEX



1

1

2

WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature.

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
4.5	18	8	7	1	1
2.3	17	8	7	1	1
0.1	13	6	5	1	1
-2.1	1	+	0	0	0
-4.3	0	0	0	0	0
-6.5	+	0	0	+	+
-8.7	1	+	0	0	0
-10.9	0	0	0	0	0
-12.1	1	+	0	0	0
-14.3	1	0	0	0	0
-16.5	1	+	0	0	0

3550

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates <.5% but >0.

Number of observations.

Use of this table in determination of Potential Superstructure Icing is explained in the text.

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	+	+	+	0	0
30.31	1	2	3	+	0
28.29	5	20	28	1	+
26.27	3	13	23	1	0
24.25	+	+	+	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1002

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	+	+	+	0	0
30.31	+	3	+	0	0
28.29	6	12	5	+	+
26.27	12	22	11	1	+
24.25	4	10	6	+	0
22.23	1	3	2	0	0
20.21	0	+	+	0	0
18.19	+	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1758

BLACK LINE - Percent frequency of T-H index ≥24°C (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	+	+	0	0	0
32.33	1	4	+	0	0
30.31	5	9	4	0	0
28.29	12	31	14	1	+
26.27	2	10	5	1	0
24.25	+	+	1	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

376

WIND SPEED (KTS) 12

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	+	1	0	0	0
32.33	+	1	+	0	0
30.31	1	4	2	0	0
28.29	14	35	11	1	+
26.27	3	13	8	2	0
24.25	0	1	+	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

504

WIND SPEED (KTS) 13

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.35	0	+	+	0	0
32.33	+	1	+	0	0
30.31	1	3	2	+	0
28.29	5	28	17	2	0
26.27	4	19	12	1	1
24.25	+	1	1	+	+
22.23	+	+	+	+	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

1016

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
30.31	0	+	+	0	0
28.29	+	2	3	+	0
26.27	1	14	19	1	0
24.25	1	23	30	2	0
22.23	+	2	2	+	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1462

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
28.29	0	+	1	0	0
26.27	+	4	3	+	0
24.25	2	10	23	3	1
22.23	1	12	29	2	1
20.21	+	1	5	1	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

310

WIND SPEED (KTS) 20

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	+	+	+	0	0
30.31	+	1	1	+	0
28.29	1	6	3	+	0
26.27	4	27	19	1	0
24.25	3	13	12	1	+
22.23	+	1	3	1	0
20.21	0	+	+	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1685

WIND SPEED (KTS) 21

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
28.29	0	1	2	0	0
26.27	2	6	6	1	0
24.25	3	17	13	2	0
22.23	1	15	14	1	+
20.21	0	11	4	1	+
18.19	0	0	0	0	0
16.17	0	1	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

267

WIND SPEED (KTS) 22

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
26.27	0	0	+	0	0
24.25	1	1	0	0	0
22.23	3	4	3	+	0
20.21	5	15	9	1	0
18.19	5	20	19	3	0
16.17	2	4	3	2	0
14.15	0	+	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

710

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
26.27	+	+	+	+	0
24.25	+	2	1	+	0
22.23	2	7	8	2	+
20.21	3	14	18	4	1
18.19	2	10	12	3	1
16.17	+	2	4	1	+
14.15	0	+	+	+	+
12.13	0	0	+	0	+
10.11	0	0	0	0	+
8.9	0	0	0	0	0
6.7	0	0	0	0	0

1663

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
29.29	+	0	0	0	0
26.27	0	+	1	0	0
24.25	+	3	4	+	0
22.23	2	13	18	3	0
20.21	3	18	19	5	+
18.19	1	5	3	1	0
16.17	0	+	+	+	+
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

743

WIND SPEED (KTS) 29

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
24.25	0	0	+	+	0
22.23	0	+	+	+	0
20.21	+	3	4	1	+
18.19	1	10	13	4	+
16.17	2	15	16	5	+
14.15	1	4	7	3	+
12.13	+	2	2	3	+
10.11	0	+	+	+	0
8.9	0	0	0	+	+
6.7	0	0	0	0	0
4.5	0	0	0	0	0

1635

WIND SPEED (KTS) 30

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
18.17	0	+	+	+	0
14.15	1	2	5	3	+
12.13	1	7	15	9	2
10.11	1	6	14	9	2
8.9	1	3	6	7	4
6.7	0	+	1	1	+
4.5	0	0	+	+	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0

762

WIND SPEED (KTS) 31

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
14.15	0	+	+	+	0
12.13	1	3	6	5	2
10.11	1	4	11	12	5
8.9	+	4	18	8	3
6.7	0	1	3	7	2
4.5	0	0	1	1	2
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0

627

WIND SPEED (KTS) 32

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
23.21	0	+	0	0	0
18.19	+	2	+	1	0
16.17	1	4	8	4	1
14.15	1	4	13	7	4
12.13	1	10	13	8	3
10.11	1	1	4	2	2
8.9	0	1	2	2	+
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

267

WIND SPEED (KTS) 33

TEMP (°C)	0-3	4-10	11-21	22-33	≥34
20.21	0	+	0	0	0
18.19	+	+	+	+	0
16.17	1	3	3	+	+
14.15	2	10	13	4	1
12.13	3	14	17	6	2
10.11	1	5	9	4	2
8.9	0	1	+	0	+
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

1062

Graphs represent the objective compilation of available data for specified areas without r
The isopleth analyses (opposite page) are based on all available data subjectively adjuste

MARCH

(°C) and wind speed

(speed of 22.33 kts.)

explained in the text.

Use to heat)

than the given value)

(e given value)

WIND SPEED (KTS) 1										WIND SPEED (KTS) 2										WIND SPEED (KTS) 3										WIND SPEED (KTS) 4										WIND SPEED (KTS) 5									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34								
32.33	+	+	+	0	0	32.33	0	+	+	0	0	32.33	0	0	+	+	0	32.33	1	+	+	0	0	32.33	+	+	+	0	0	34.35	+	0	0	0	0	34.35	+	0	0	0	0								
30.31	1	2	3	+	0	30.31	0	1	2	+	0	30.31	+	0	+	+	0	30.31	1	2	2	+	0	30.31	1	2	2	+	0	30.31	2	1	2	2	+	0	30.31	2	1	2	2	+	0						
28.29	5	20	28	1	+	28.29	+	7	18	2	+	28.29	1	2	5	2	0	28.29	1	12	13	2	0	28.29	1	12	13	2	0	28.29	9	12	1	+	0	28.29	9	12	1	+	0								
26.27	3	13	23	1	0	26.27	1	20	39	3	0	26.27	2	18	40	6	+	26.27	3	24	26	3	0	26.27	3	24	26	3	0	26.27	3	24	26	3	0	26.27	3	24	26	3	0								
24.25	+	+	+	+	0	24.25	0	1	3	+	0	24.25	+	8	11	2	+	24.25	2	3	3	1	0	24.25	2	3	3	1	0	24.25	7	18	34	2	+	0	24.25	7	18	34	2	+	0						
22.23	0	0	0	0	0	22.23	0	+	0	0	0	22.23	0	+	1	0	0	22.23	+	+	+	0	0	22.23	+	+	+	0	0	22.23	1	1	1	+	0	22.23	1	1	1	+	0								
20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0								
18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0								
16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0								
14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0								
12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0								
					1002						728						464						544																	942									

6										7										8										9										10									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34								
32.33	+	+	+	0	0	32.33	0	+	+	0	0	32.33	+	0	+	0	0	32.33	+	0	+	0	0	30.31	0	+	0	0	0	32.33	+	+	+	0	0	32.33	+	+	+	0	0								
30.31	+	3	+	0	0	30.31	+	2	2	+	0	30.31	0	1	1	+	0	30.31	0	1	1	+	0	28.29	+	2	2	+	0	30.31	1	1	+	+	0	28.29	+	2	2	+	0								
28.29	6	12	5	+	+	28.29	3	17	14	0	0	28.29	+	10	13	1	0	28.29	+	10	13	1	0	26.27	+	19	32	1	0	28.29	5	10	2	0	0	26.27	+	19	32	1	0								
26.27	12	22	11	1	+	26.27	3	27	25	1	+	26.27	1	28	56	1	0	26.27	+	17	25	1	0	24.25	+	17	25	1	0	26.27	15	42	6	+	0	24.25	+	17	25	1	0								
24.25	4	10	6	+	0	24.25	+	3	1	0	0	24.25	+	3	4	+	0	24.25	+	3	4	+	0	22.23	0	+	1	0	0	24.25	5	10	1	0	0	24.25	5	10	1	0	0								
22.23	1	3	2	0	0	22.23	0	0	0	0	0	22.23	0	+	+	0	0	22.23	0	+	+	0	0	20.21	0	0	0	0	0	22.23	0	0	0	0	0	22.23	0	0	0	0	0								
20.21	0	+	+	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	18.19	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0								
18.19	+	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0								
16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0								
14.16	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0								
12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0								
					1758						346						967						1867																	2352									

15										16										17										18										19											
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)											
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34				
28.29	0	+	+	1	3	0	28.29	0	2	1	0	0	30.31	0	+	+	0	0	30.31	0	+	+	0	0	28.29	0	+	+	0	0	28.29	+	+	+	0	0	28.29	+	+	+	0	0	28.29	+	+	+	0	0			
26.27	0	+	4	3	+	0	26.27	0	3	4	0	0	26.29	2	3	2	+	0	26.29	1	3	1	+	0	26.27	1	3	1	+	0	26.27	+	+	3	2	+	0	26.27	+	+	3	2	+	0	26.27	+	+	3	2	+	0
24.26	2	10	23	3	1	0	24.26	1	11	12	0	0	24.26	3	13	15	2	+	0	24.26	5	20	13	1	0	24.26	5	20	13	1	0	24.26	1	10	9	1	0	24.26	1	10	9	1	0	24.26	1	10	9	1	0		
22.23	1	12	29	2	1	0	22.23	1	26	31	0	0	24.26	1	16	23	7	+	0	24.23	4	13	19	5	+	0	24.23	4	13	19	5	+	0	22.23	2	19	17	4	+	0	22.23	2	19	17	4	+	0				
20.21	+	1	5	1	0	0	20.21	1	3	5	0	0	22.23	+	4	5	1	+	0	22.23	1	4	5	2	1	0	20.21	1	8	12	3	1	0	20.21	1	8	12	3	1	0	20.21	1	8	12	3	1	0				
18.19	0	0	0	0	0	0	18.19	0	+	0	0	0	20.21	0	+	0	+	1	18.19	0	+	0	+	0	18.19	0	+	0	0	0	18.19	+	2	2	1	0	18.19	+	2	2	1	0	18.19	+	2	2	1	0			
16.17	0	0	0	0	0	0	16.17	0	0	0	0	0	19.19	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0			
14.15	0	0	0	0	0	0	14.15	0	0	0	0	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0			
12.13	0	0	0	0	0	0	12.13	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0			
10.11	0	0	0	0	0	0	10.11	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0			
8.9	0	0	0	0	0	0	8.9	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0			
310						310						582						629						1235						1235						1235						1235									

24

WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34				
28.28	+	0	0	0	0				
26.27	C	+	1	0	0				
24.25	+	3	4	+	0				
22.23	2	13	18	3	0				
20.21	3	18	19	6	+				
18.19	1	5	3	1	0				
16.17	0	+	+	+	0				
14.16	0	0	0	0	0				
12.13	0	0	0	0	0				
10.11	0	0	0	0	0				
8.9	0	0	0	0	0				

743

25

WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34				
22.23	+	+	+	0	0				
20.21	+	1	2	+	0				
18.19	1	6	8	4	1				
16.17	2	15	24	6	1				
14.16	1	7	12	4	1				
12.13	+	+	1	+	+				
10.11	0	0	+	+	0				
8.9	0	0	0	0	0				
6.7	0	0	0	0	0				
4.5	0	0	0	0	0				
2.3	0	0	0	0	0				

1048

26

WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34				
26.27	+	0	0	+	0				
24.25	+	1	1	+	0				
22.23	1	5	4	1	0				
20.21	1	11	14	2	1				
18.19	1	15	18	5	1				
16.17	1	6	6	2	2				
14.15	+	1	1	+	0				
12.13	0	0	0	+	0				
10.11	0	0	0	0	0				
8.9	0	0	0	0	0				
6.7	0	0	0	0	0				

749

27

WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34				
28.28	0	+	0	0	0				
26.27	1	1	+	+	0				
24.25	2	4	2	+	0				
22.23	6	13	7	1	0				
20.21	7	18	17	3	+				
18.19	2	6	6	1	0				
16.17	+	+	1	+	0				
14.16	0	0	0	0	0				
12.13	0	0	0	0	0				
10.11	0	0	0	0	0				
8.9	0	0	0	0	0				
6.7	0	0	0	0	0				

481

28

WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34				
24.25	+	0	0	0	0				
22.23	+	2	+	+	0				
20.21	2	4	3	1	0				
18.19	3	14	12	2	0				
16.17	4	13	16	3	1				
14.15	1	7	7	3	1				
12.13	0	+	2	0	0				
10.11	0	0	0	0	0				
8.9	0	0	0	0	0				
6.7	0	0	0	0	0				
4.5	0	0	0	0	0				

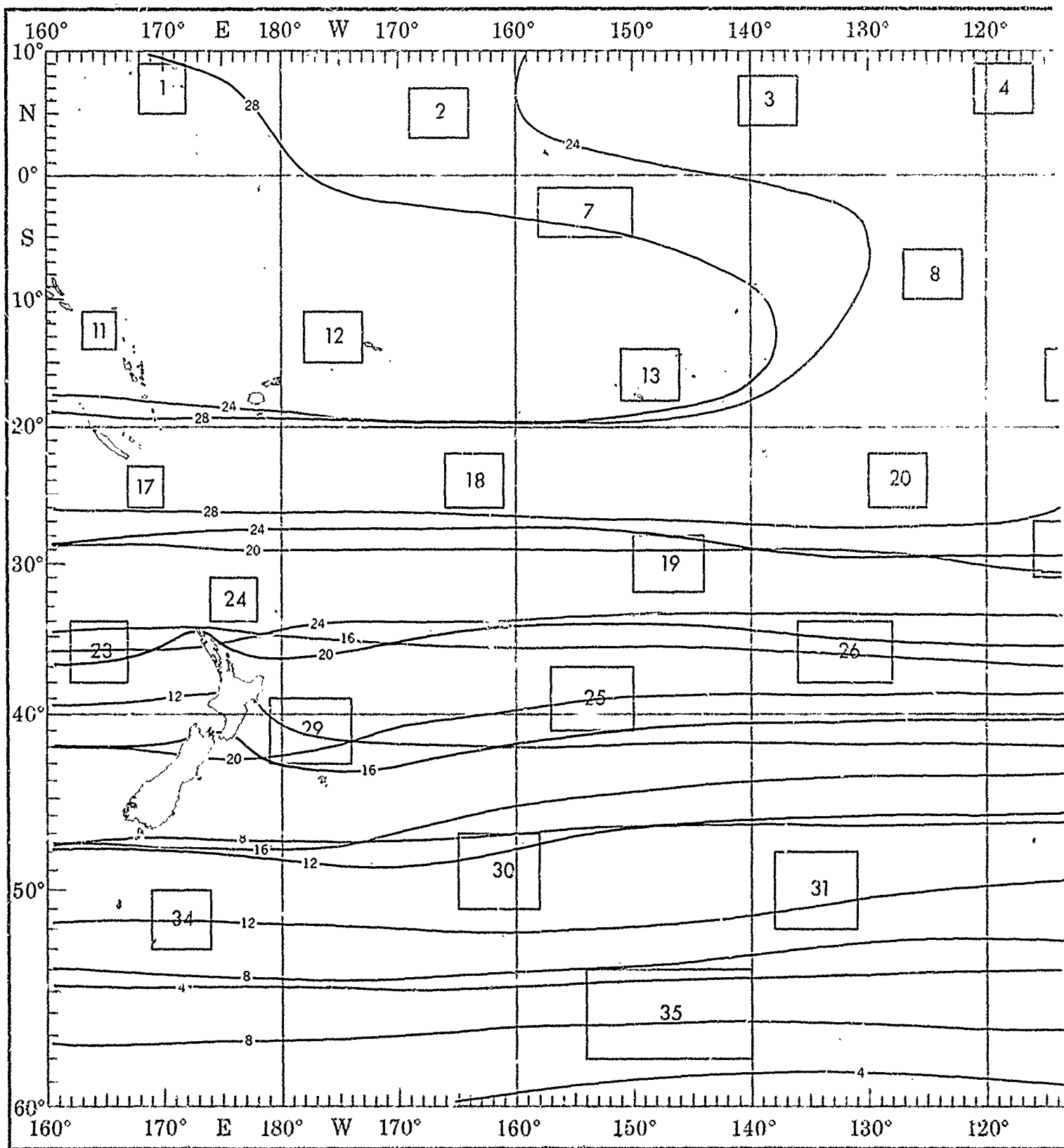
314

[illegible]

The objective compilation of available data for specified areas without regard to suspected biases. The estimates (opposite page) are based on all available data subjectively adjusted where bias was evident.

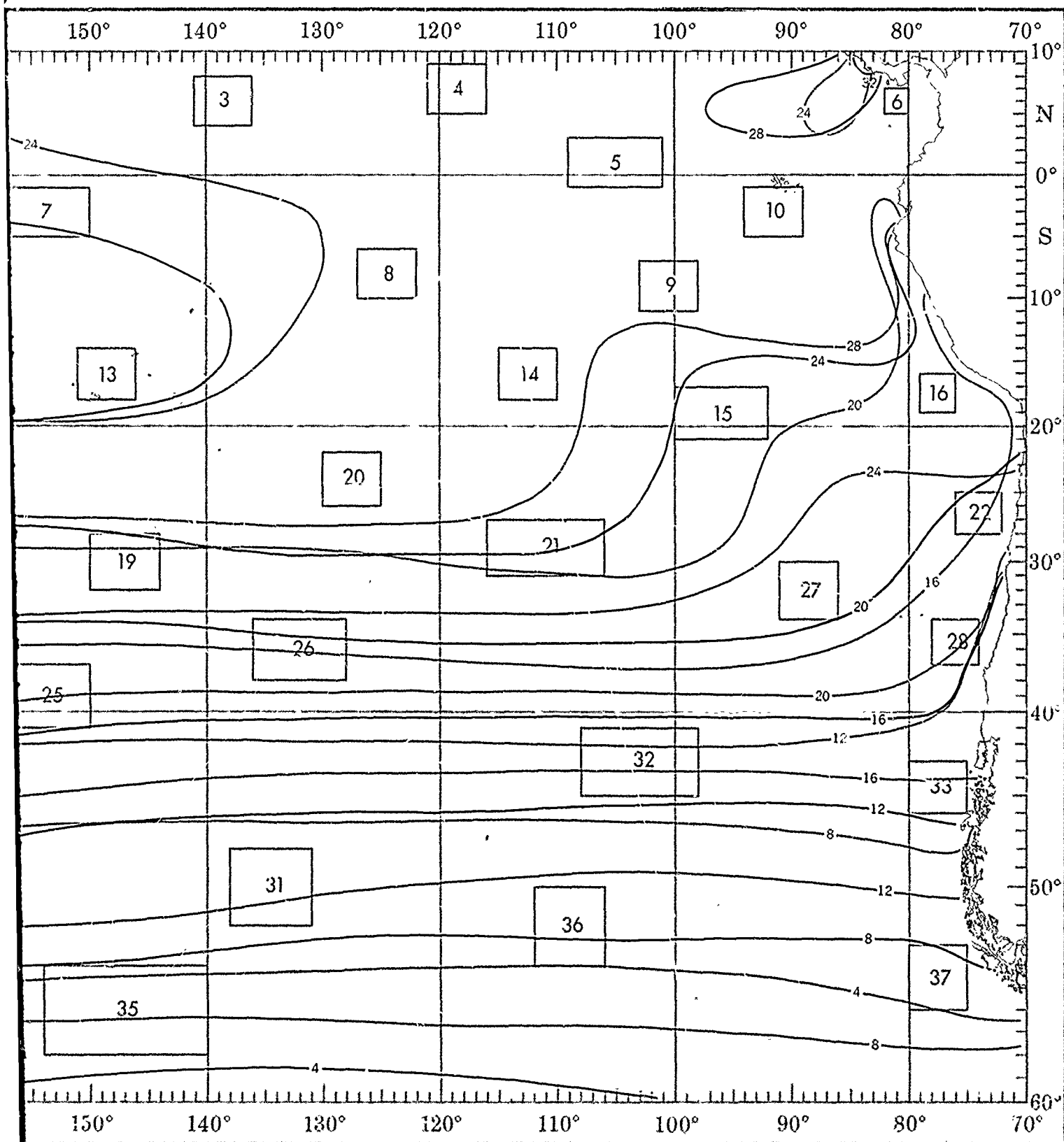
MARCH

SEA



1

SEA SURFACE TEMPERATURE

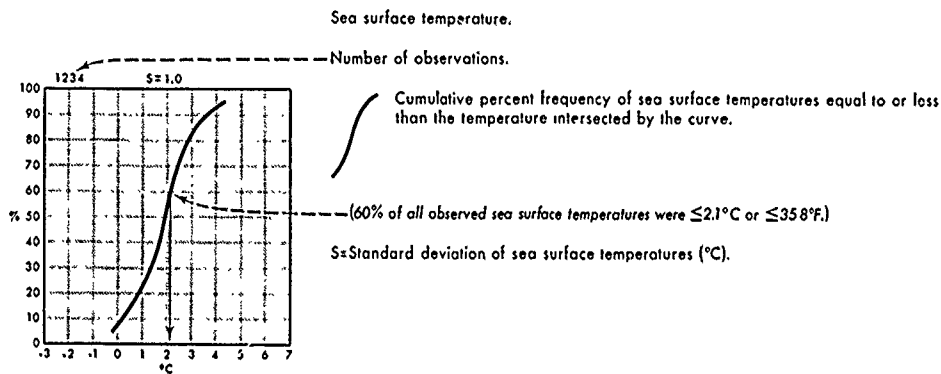


1

1

2

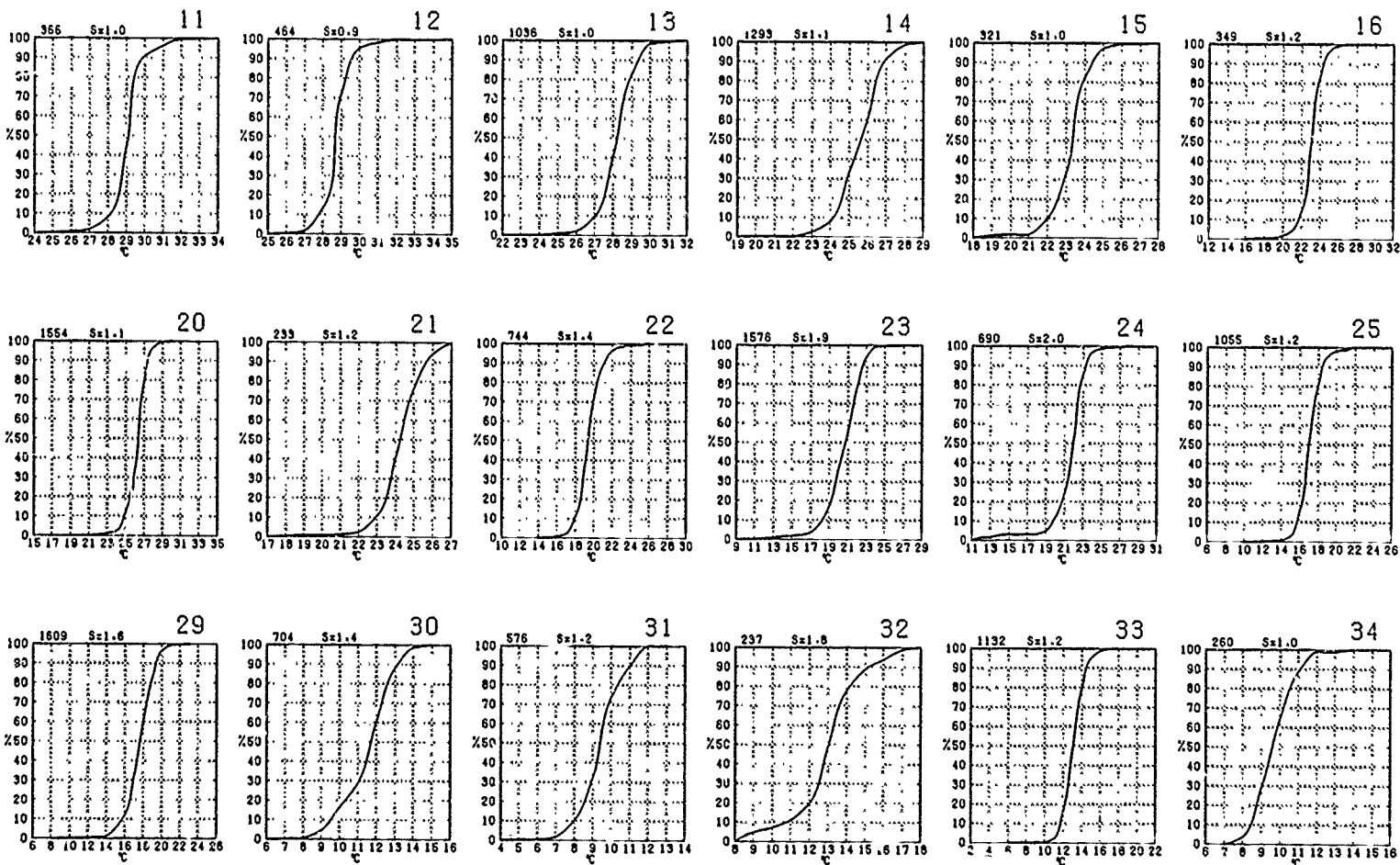
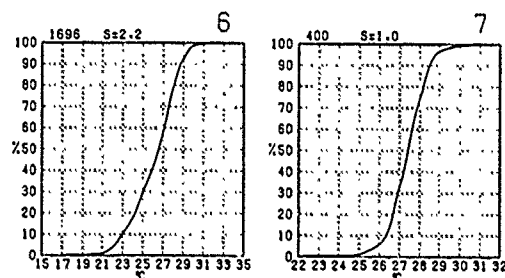
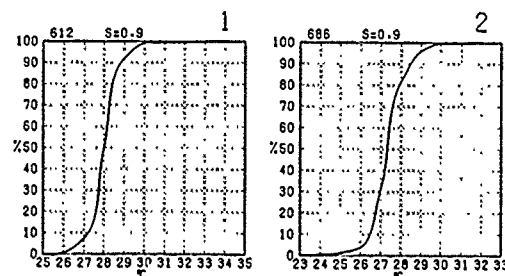
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

ATURE

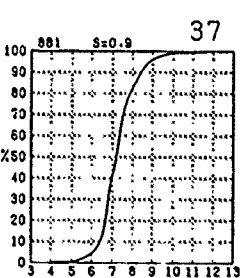
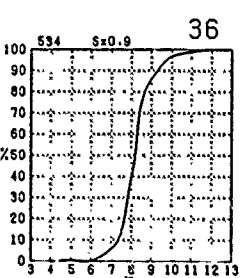
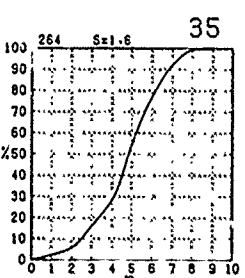
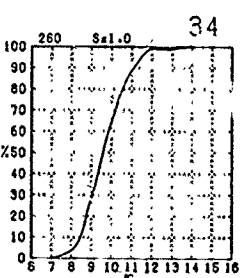
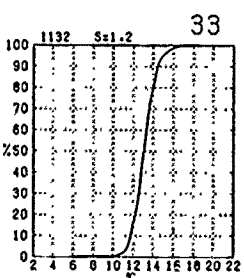
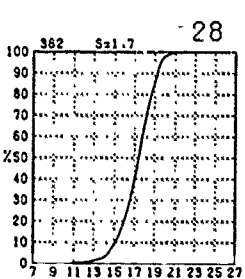
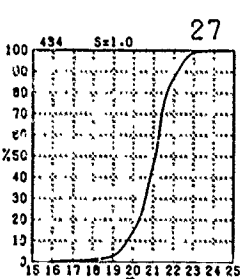
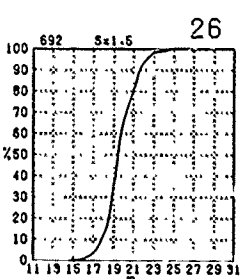
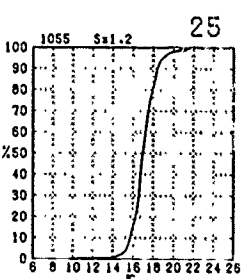
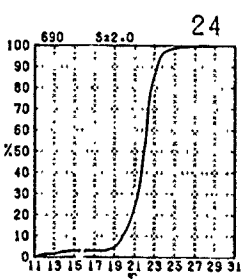
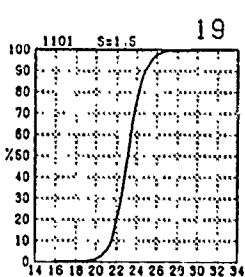
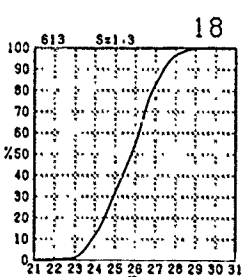
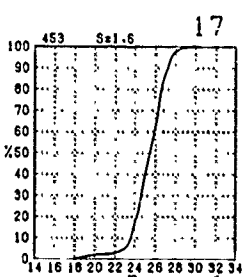
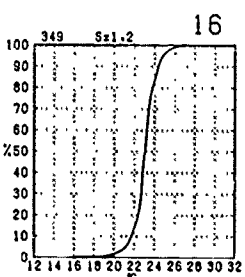
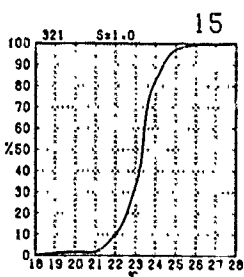
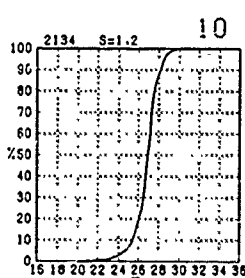
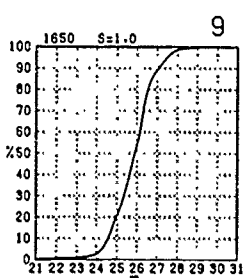
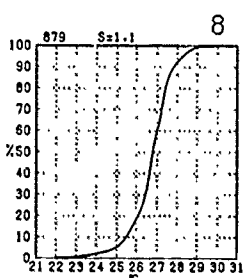
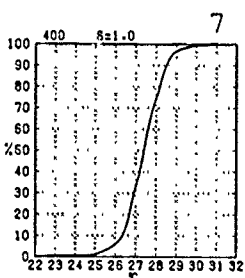
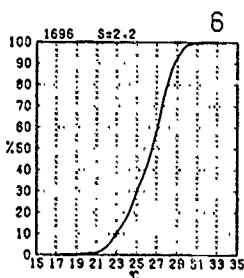
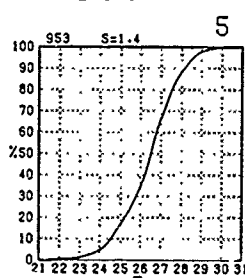
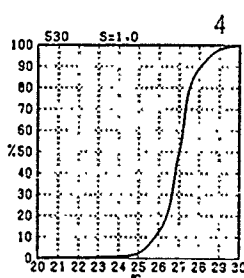
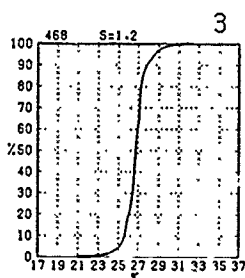
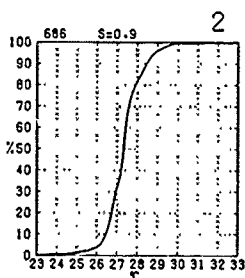
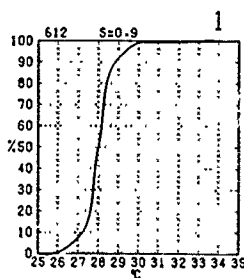
MARCH

temperatures equal to or less

or $\leq 35.8^\circ\text{F}$)

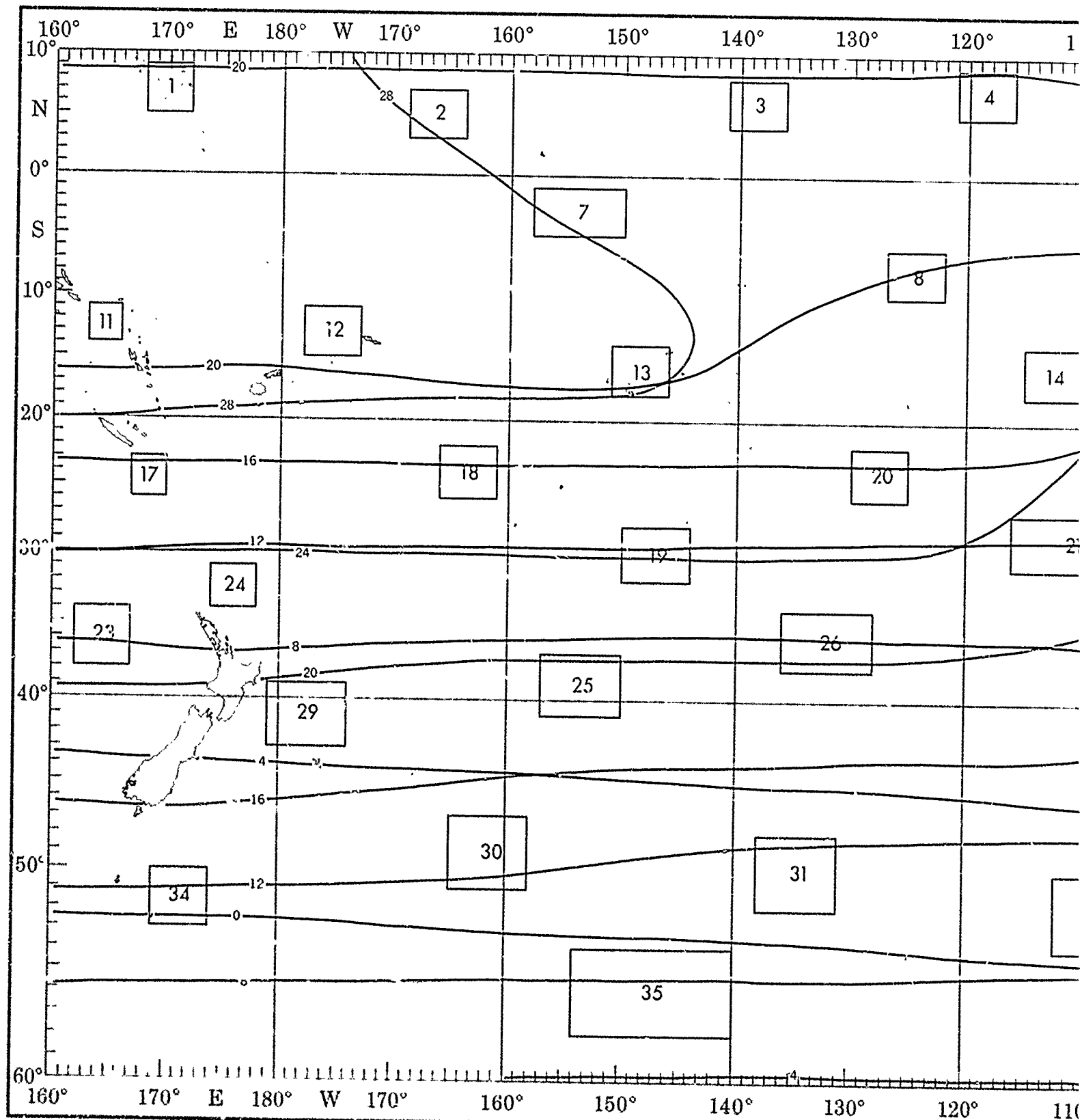
or less than the given

er than the given value)

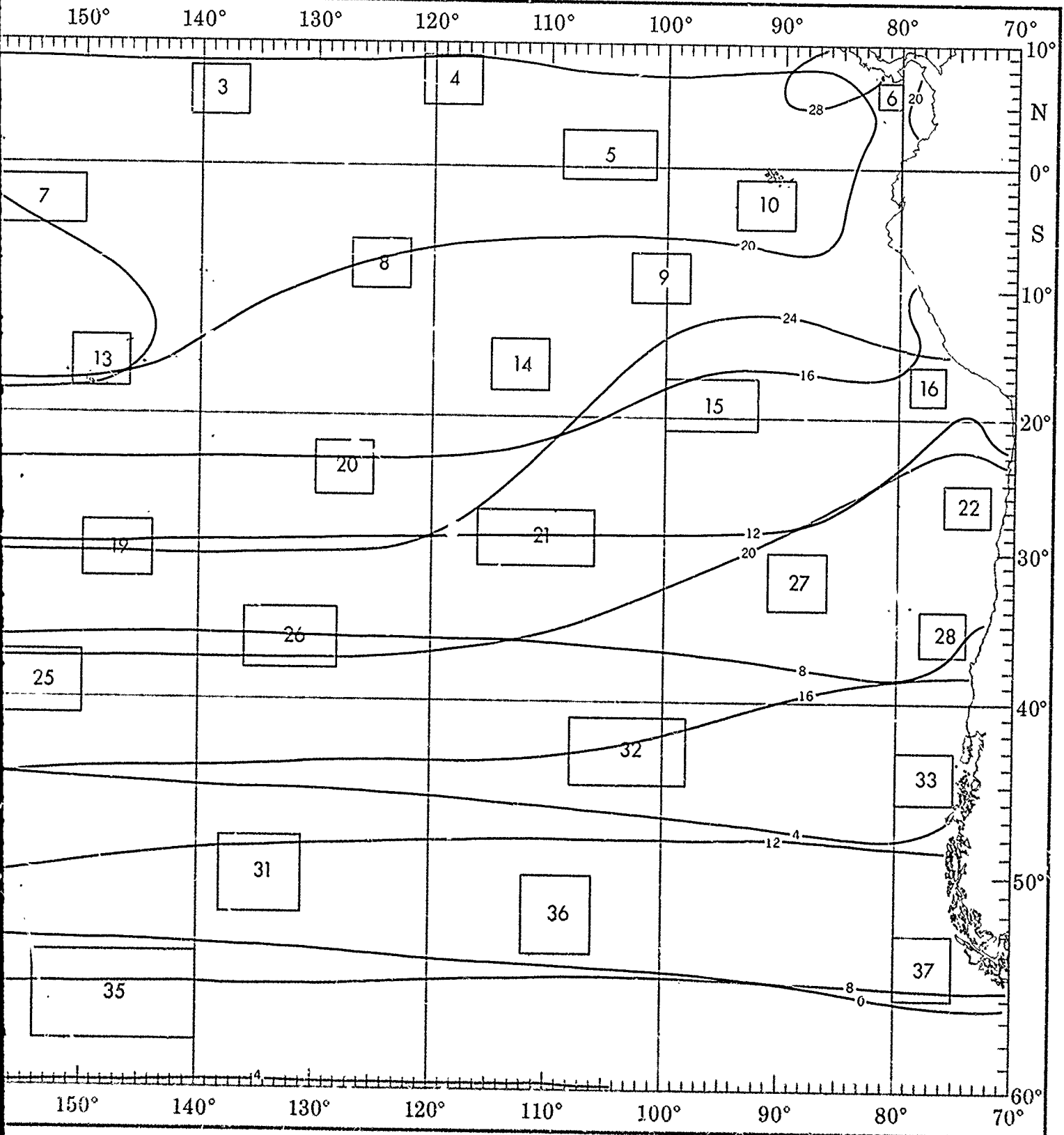


the objective compilation of available data for specified areas without regard to suspected biases.
es (opposite page) are based on all available data subjectively adjusted where bias was evident.

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HUMIDITY



1

1

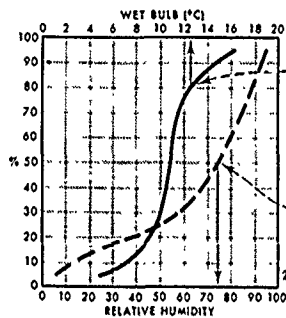
2

WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity.

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale).



Wet bulb (°C).

(80% of all observed wet-bulb temperatures were $\leq 12.5^{\circ}\text{C}$ or 54.5°F .)

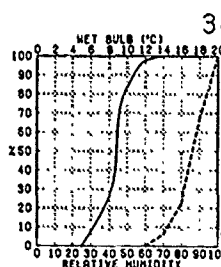
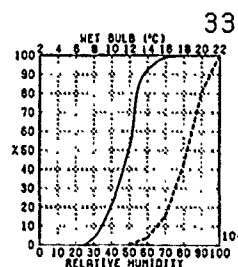
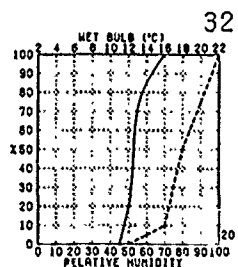
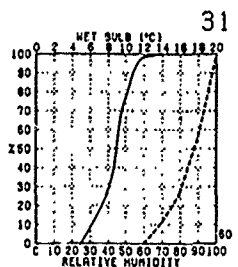
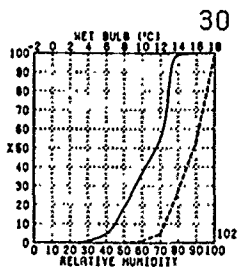
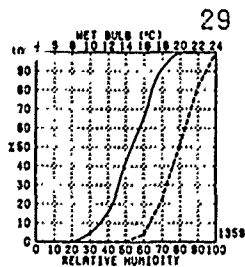
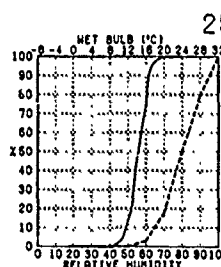
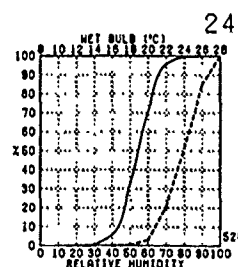
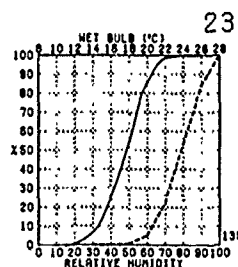
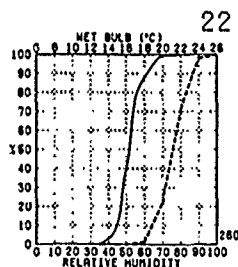
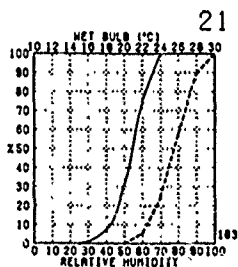
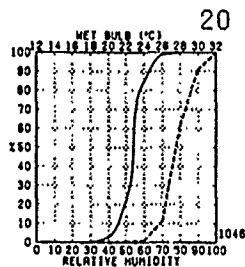
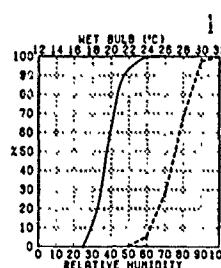
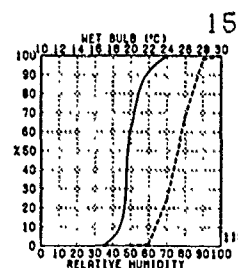
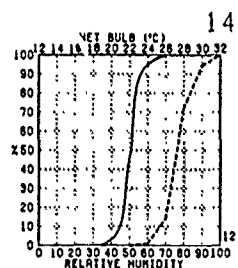
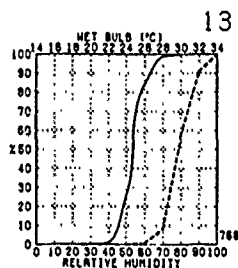
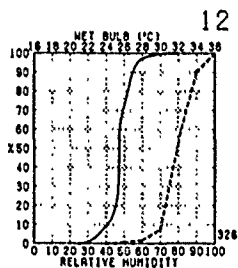
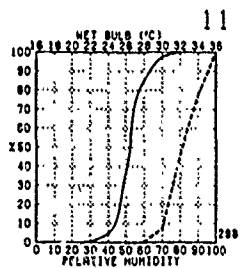
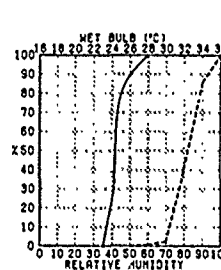
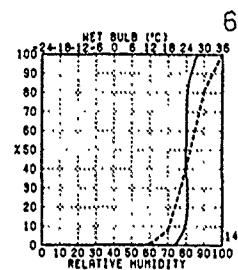
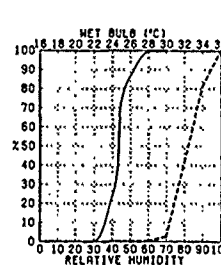
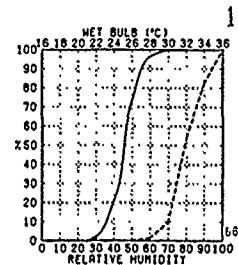
Relative humidity (%).

(50% of all observed relative humidities were $\leq 74\%$.)

Number of observations.

BLUE LINE - Minimum (1%) dew point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted.

IVE HUMIDITY

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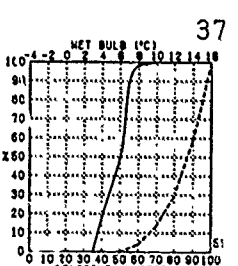
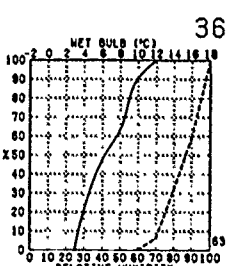
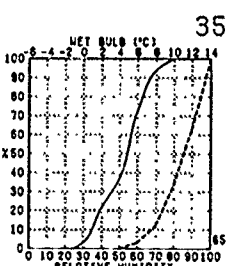
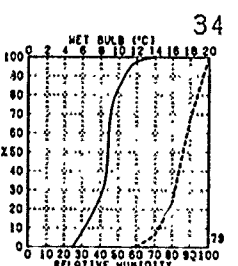
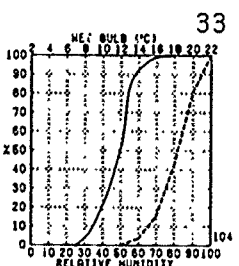
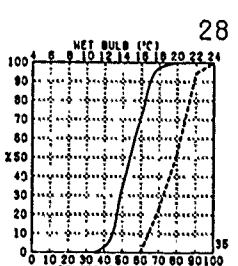
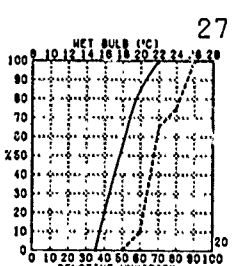
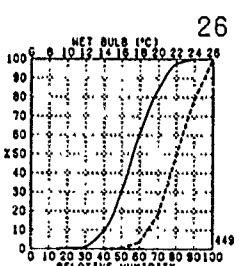
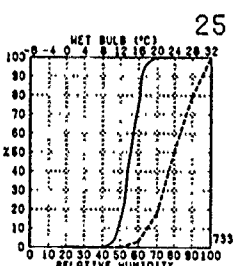
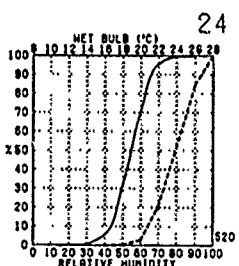
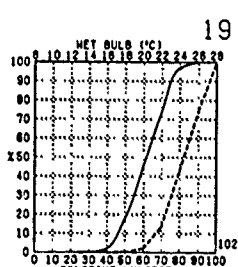
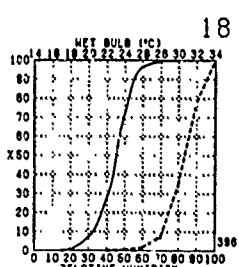
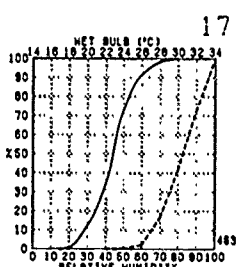
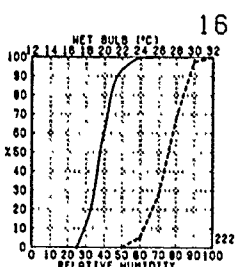
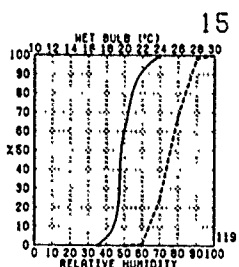
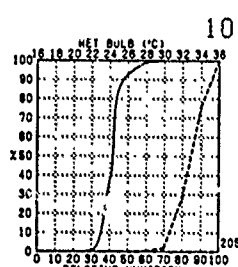
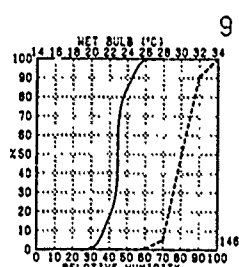
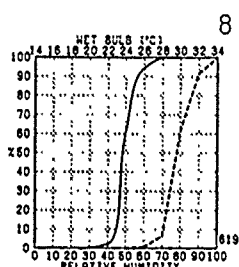
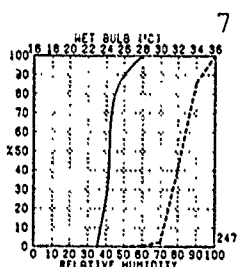
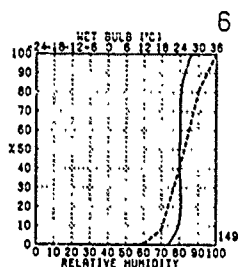
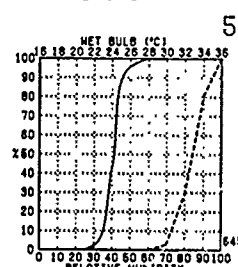
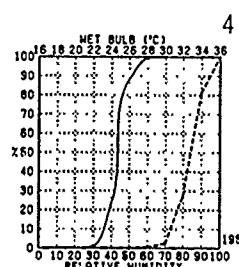
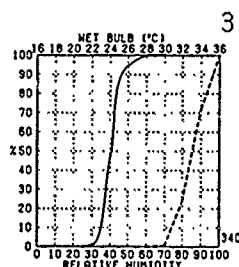
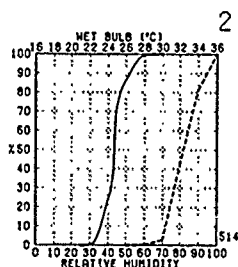
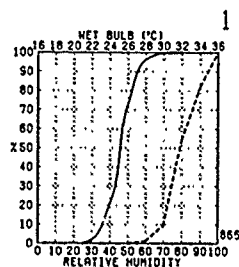
equal to or less than the

54.5°F.)

to or less than the humidity

to or less than the given

ter than the given value)



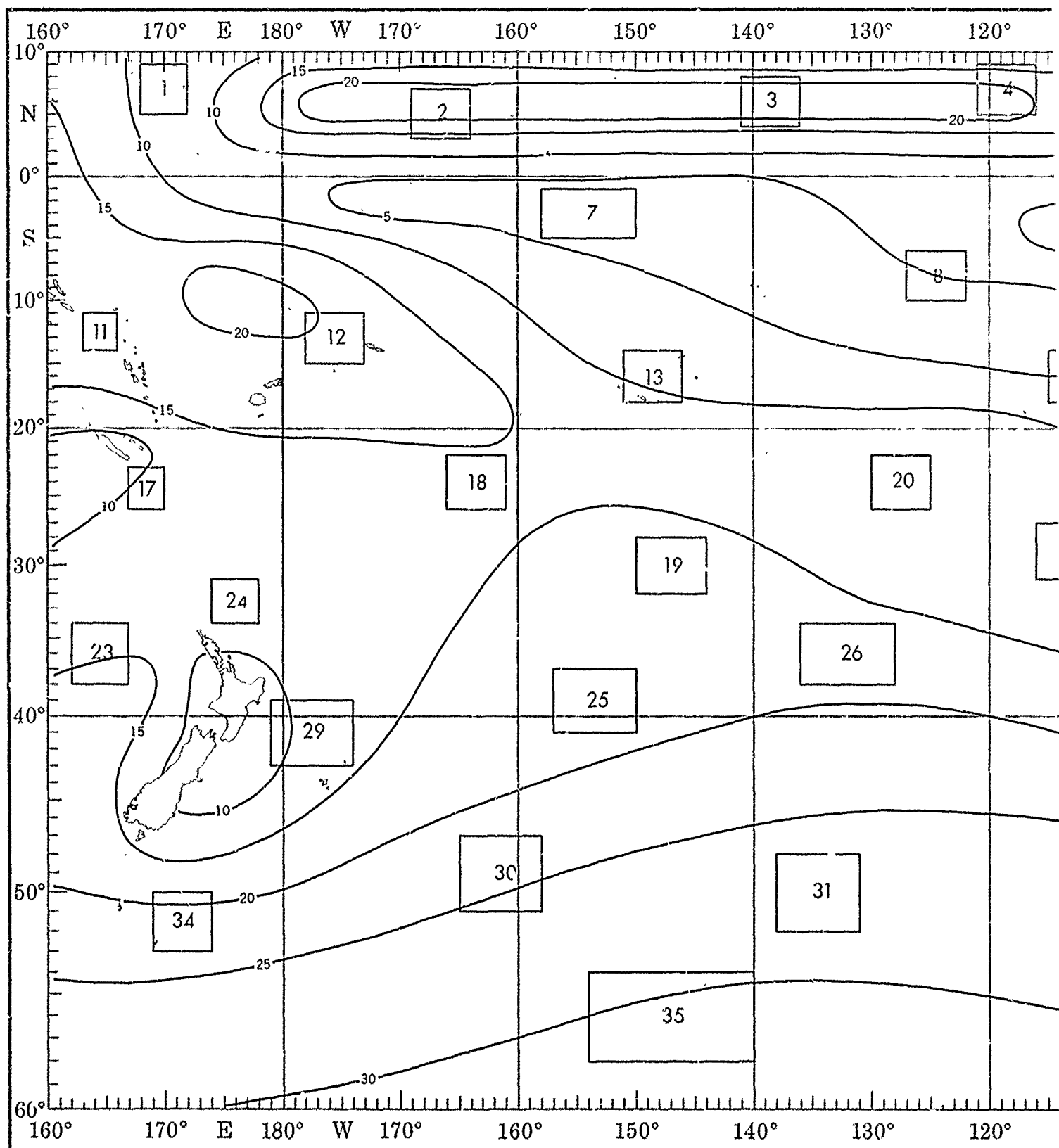
the objective compilation of available data for specified areas without regard to suspected biases.
 ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

7

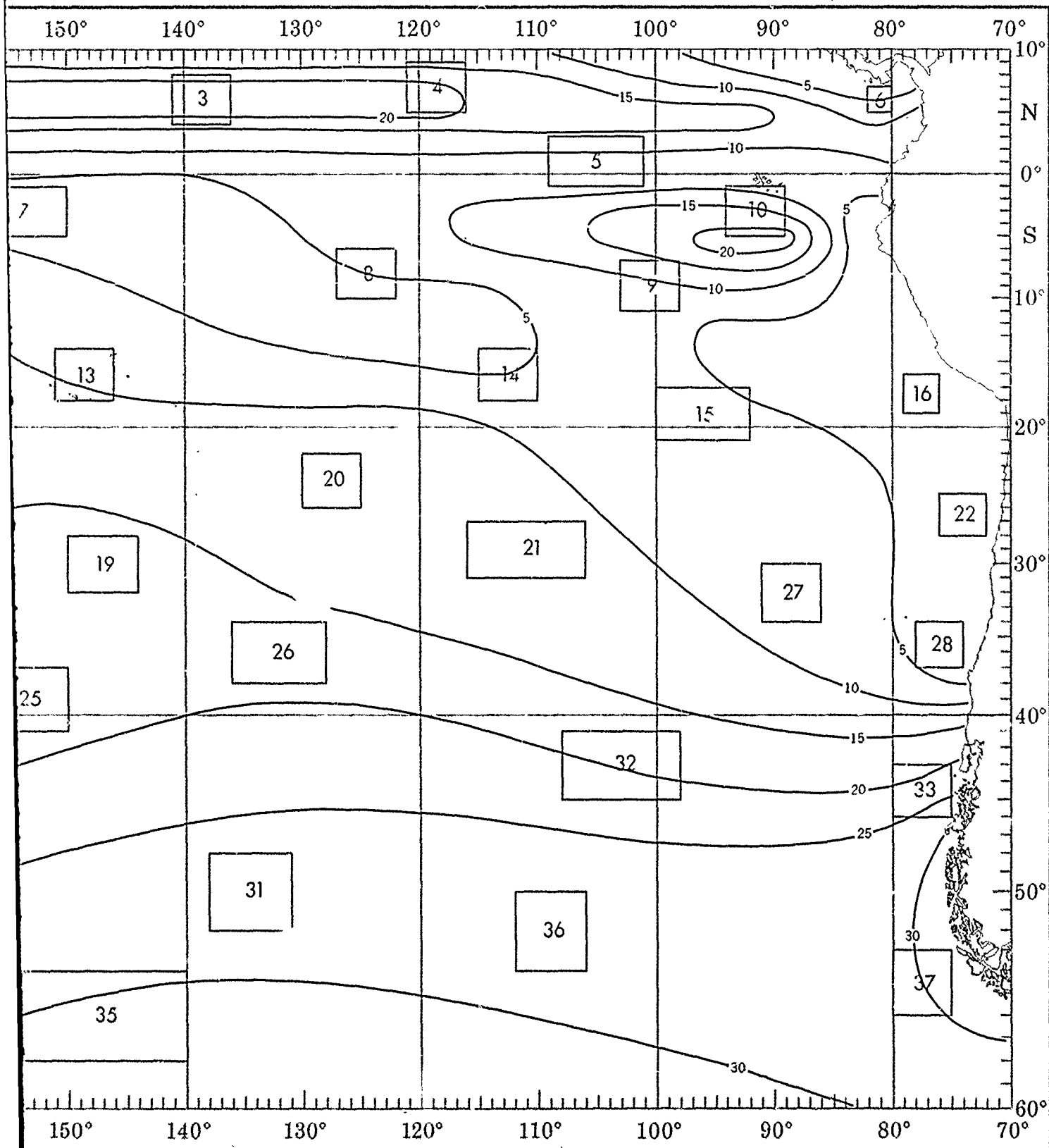
1

2

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PRECIPITATION



↑

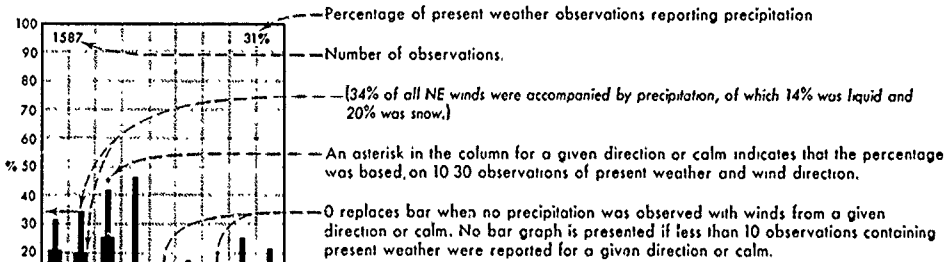
1

2

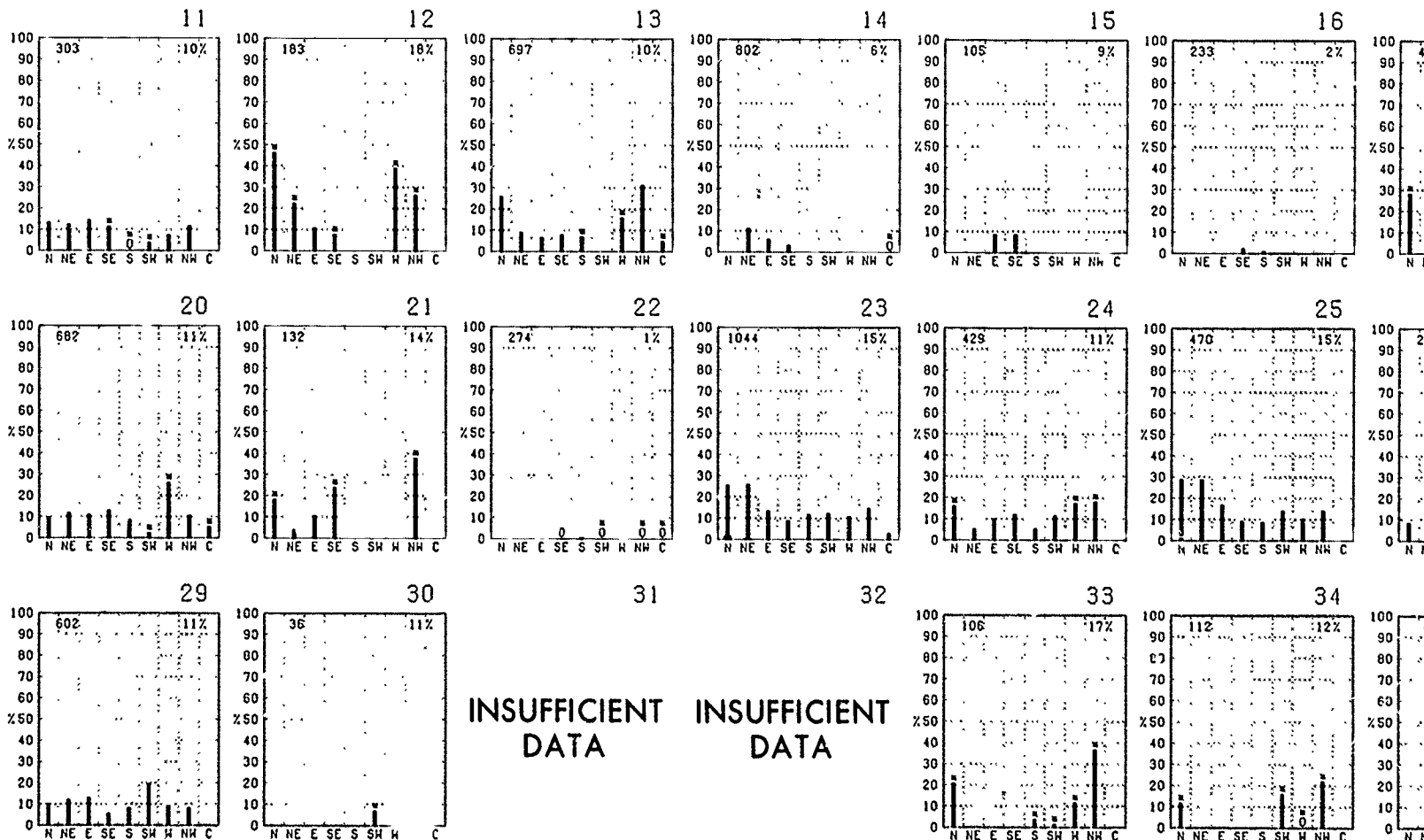
PRECIPITATION

% Pcpn % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to susceptibility. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

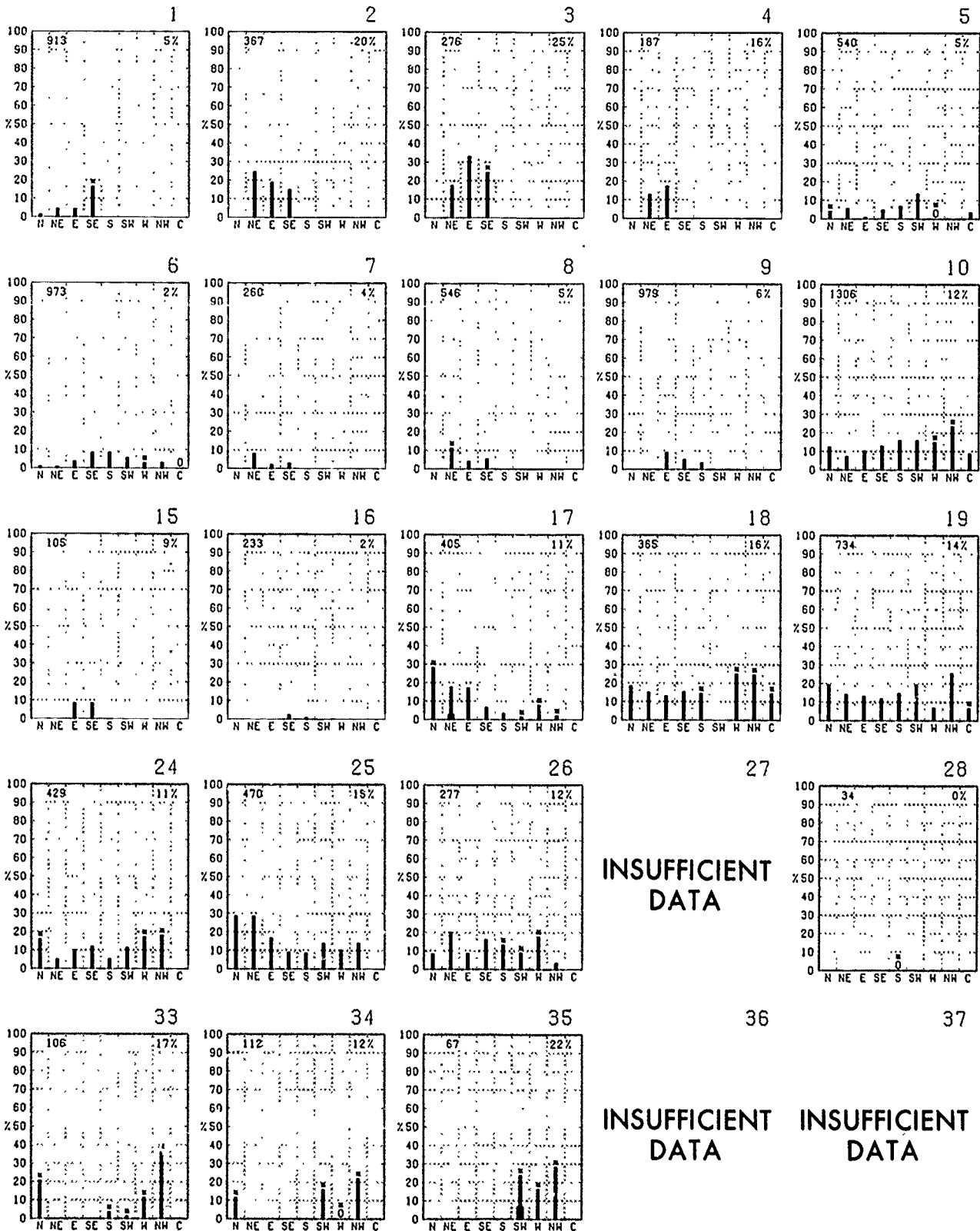
MARCH

that were
rain and freezing

was liquid and

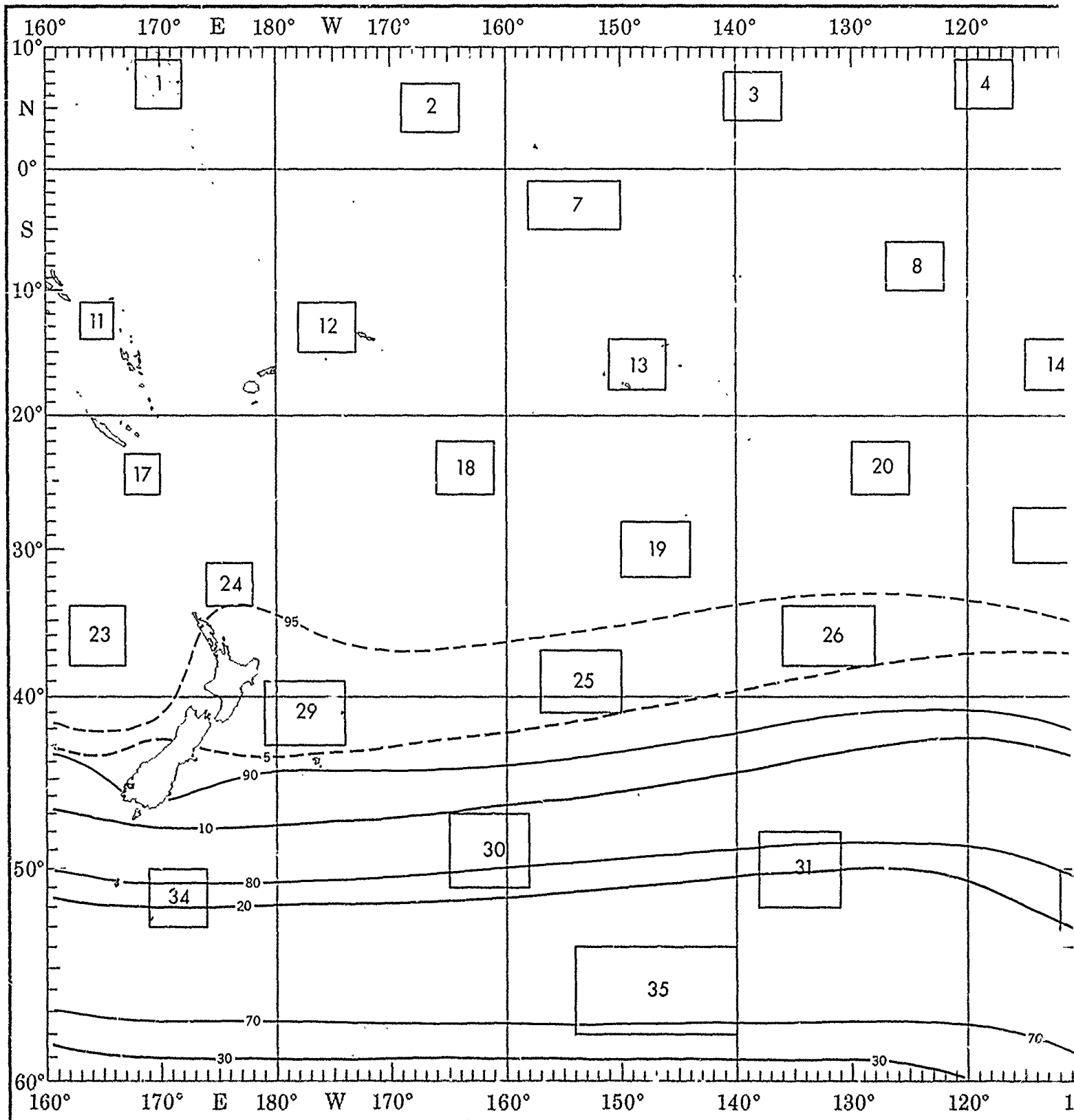
that the percentage
section

on a given
variations containing



active compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

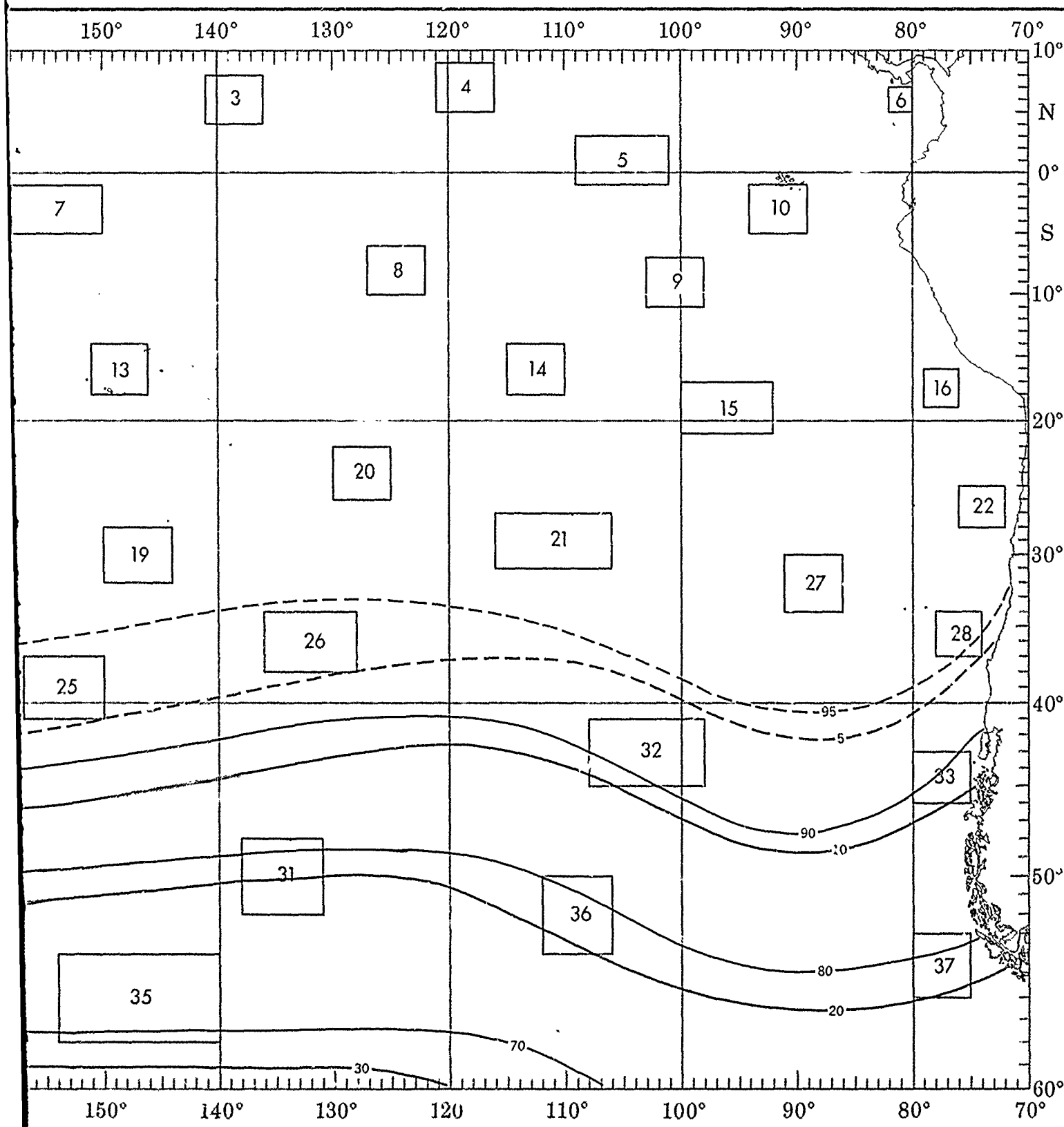
MARCH



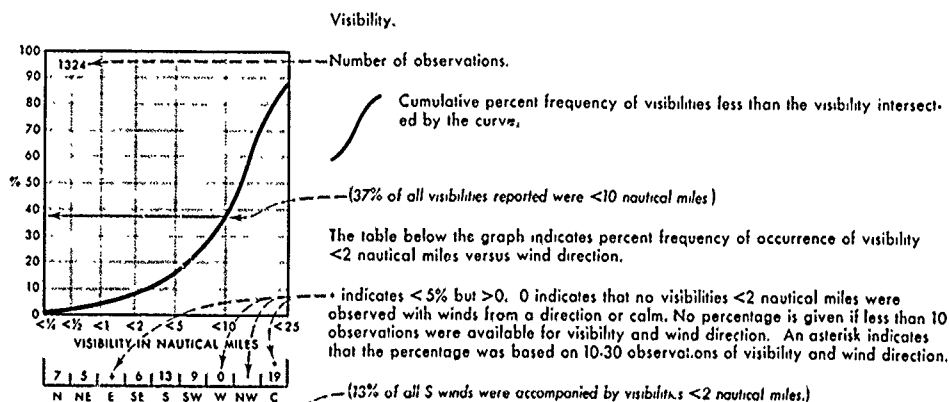
1

1

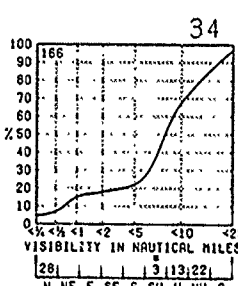
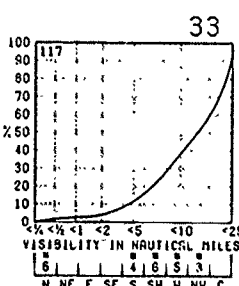
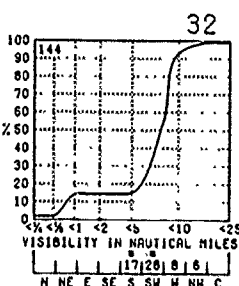
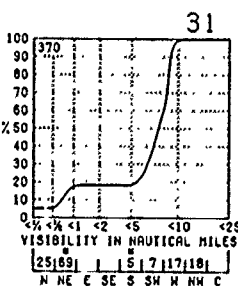
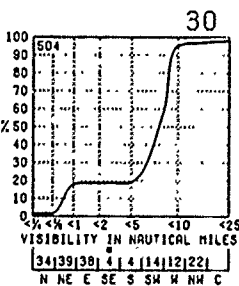
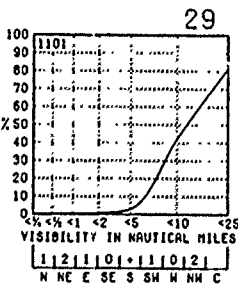
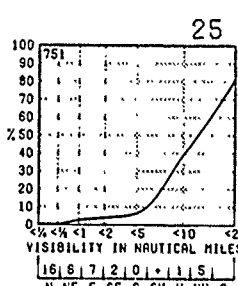
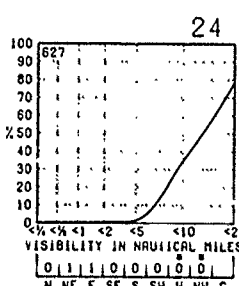
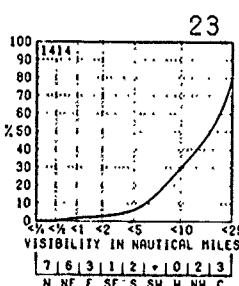
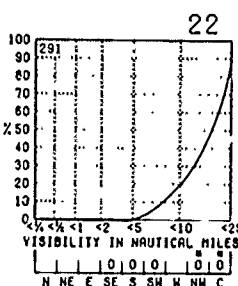
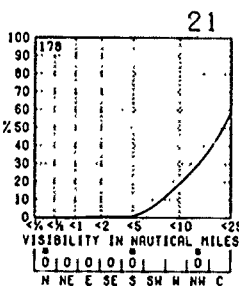
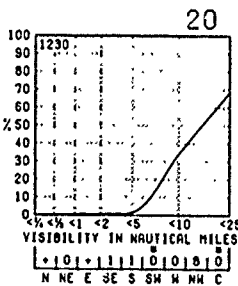
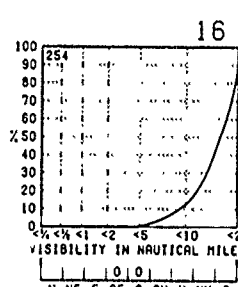
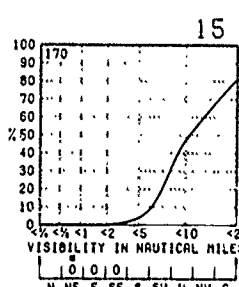
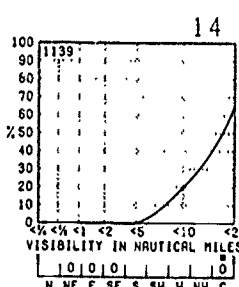
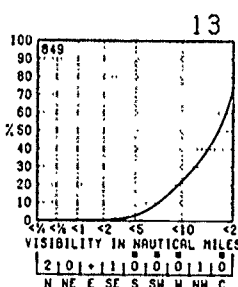
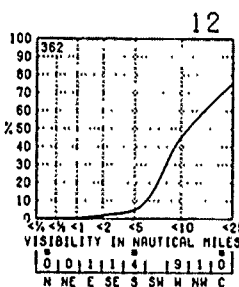
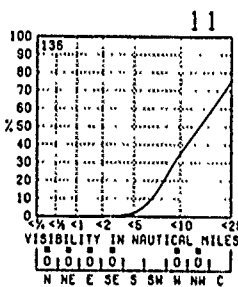
VISIBILITY



VISIBILITY

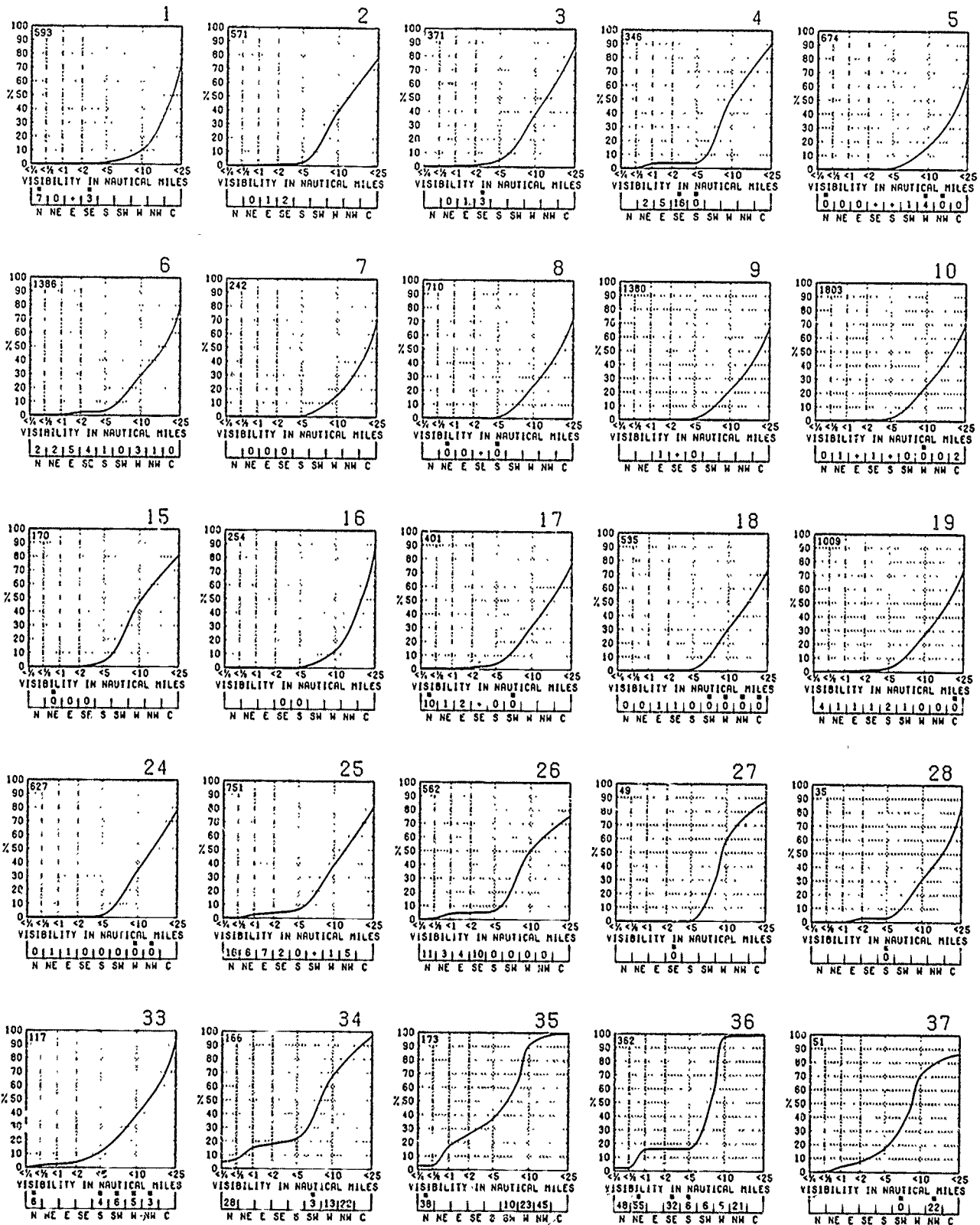


BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles
 RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to size. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bi-

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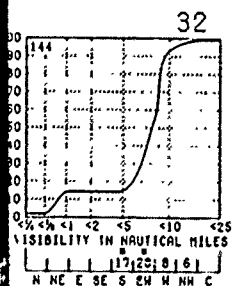
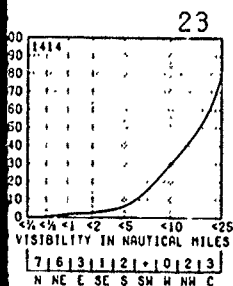
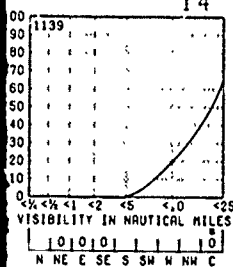


the visibility intersect-

urrence of visibility

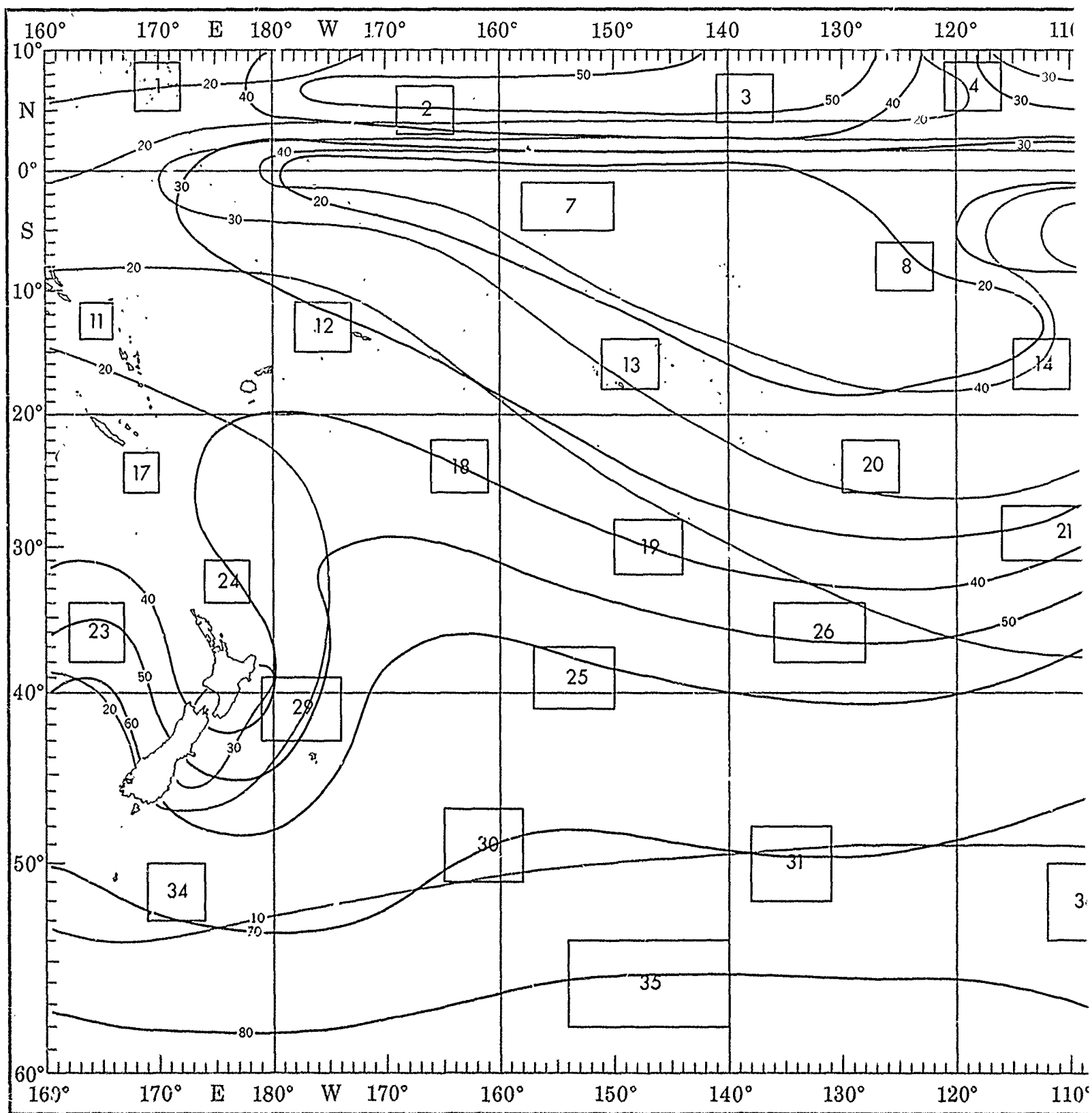
utical miles were
is given if less than 10
An asterisk indicates
ity and wind direction.

(ies.)



objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

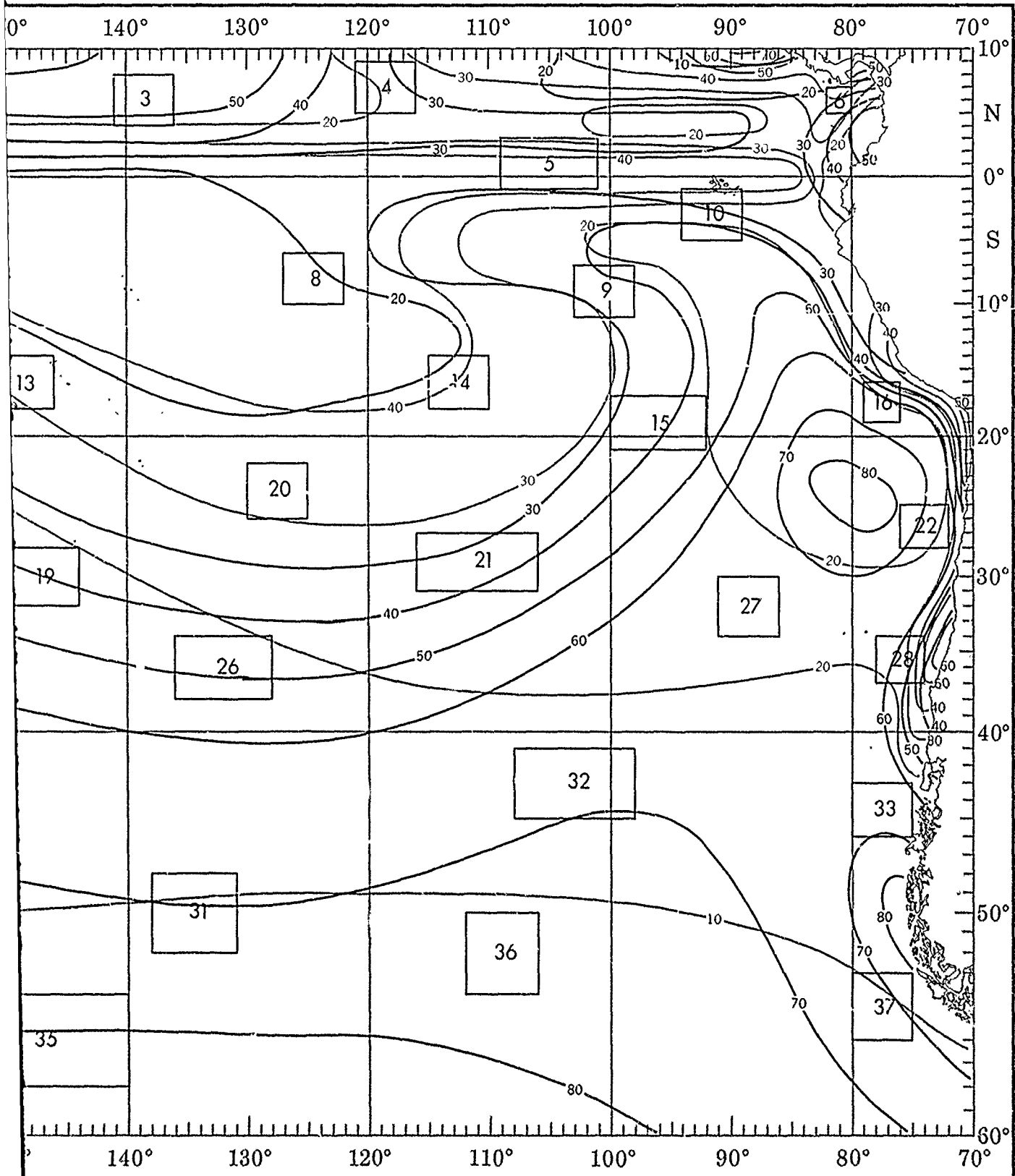
MARCH



1

1

CLOUD COVER

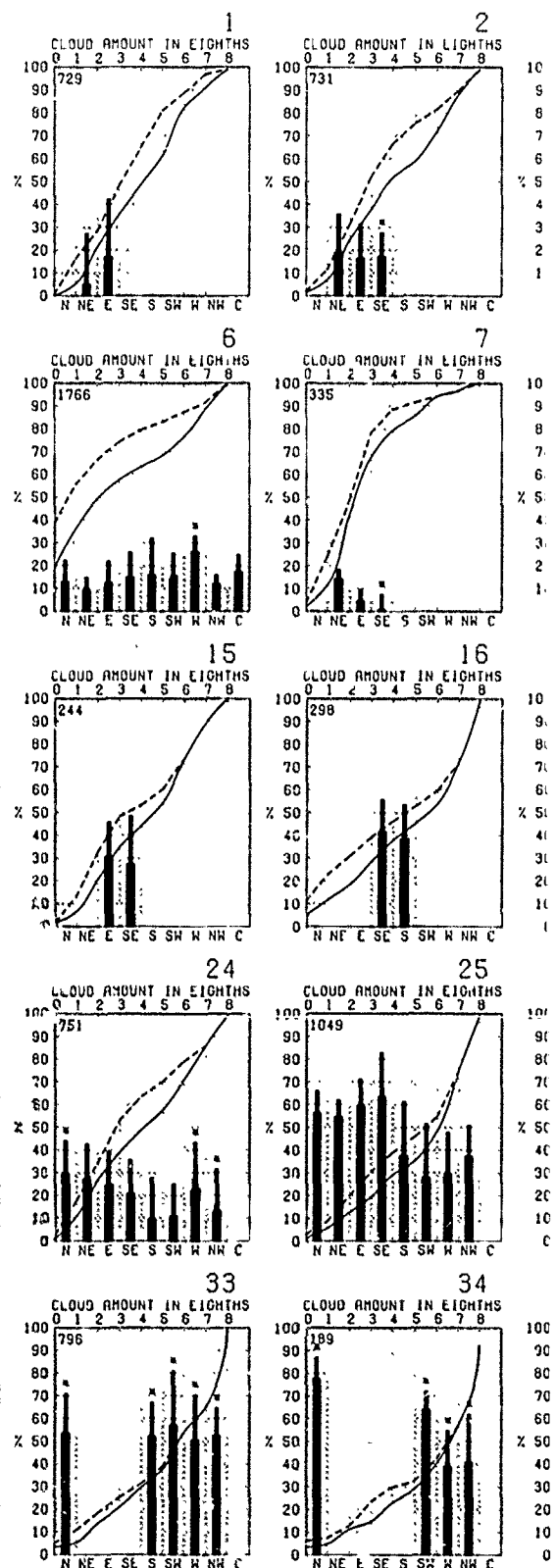
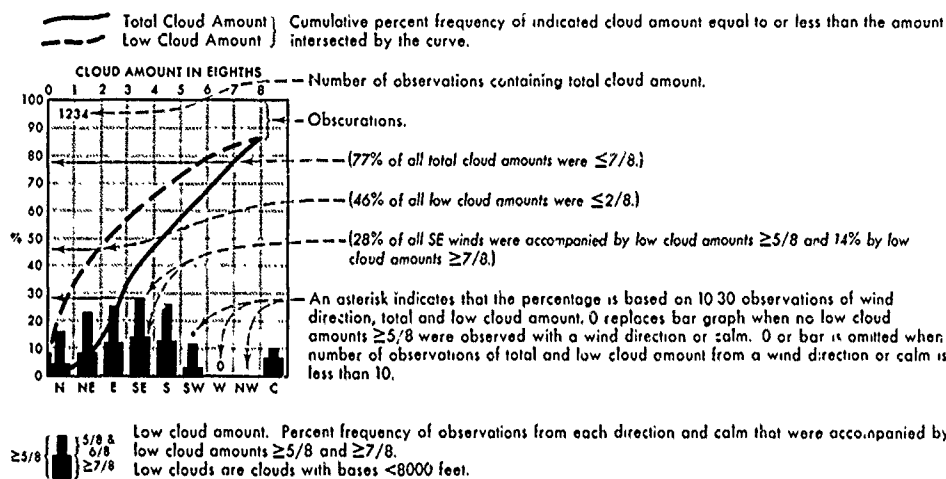


11

1

2

CLOUD COVER



Graphs represent the objective compilation of available data for specified areas without regard to :
 The isopleth analyses (opposite page) are based on all available data subjectively adjusted where t

MARCH

al to or less than the amount

nts ≥ 5 , 8 and 14% by low

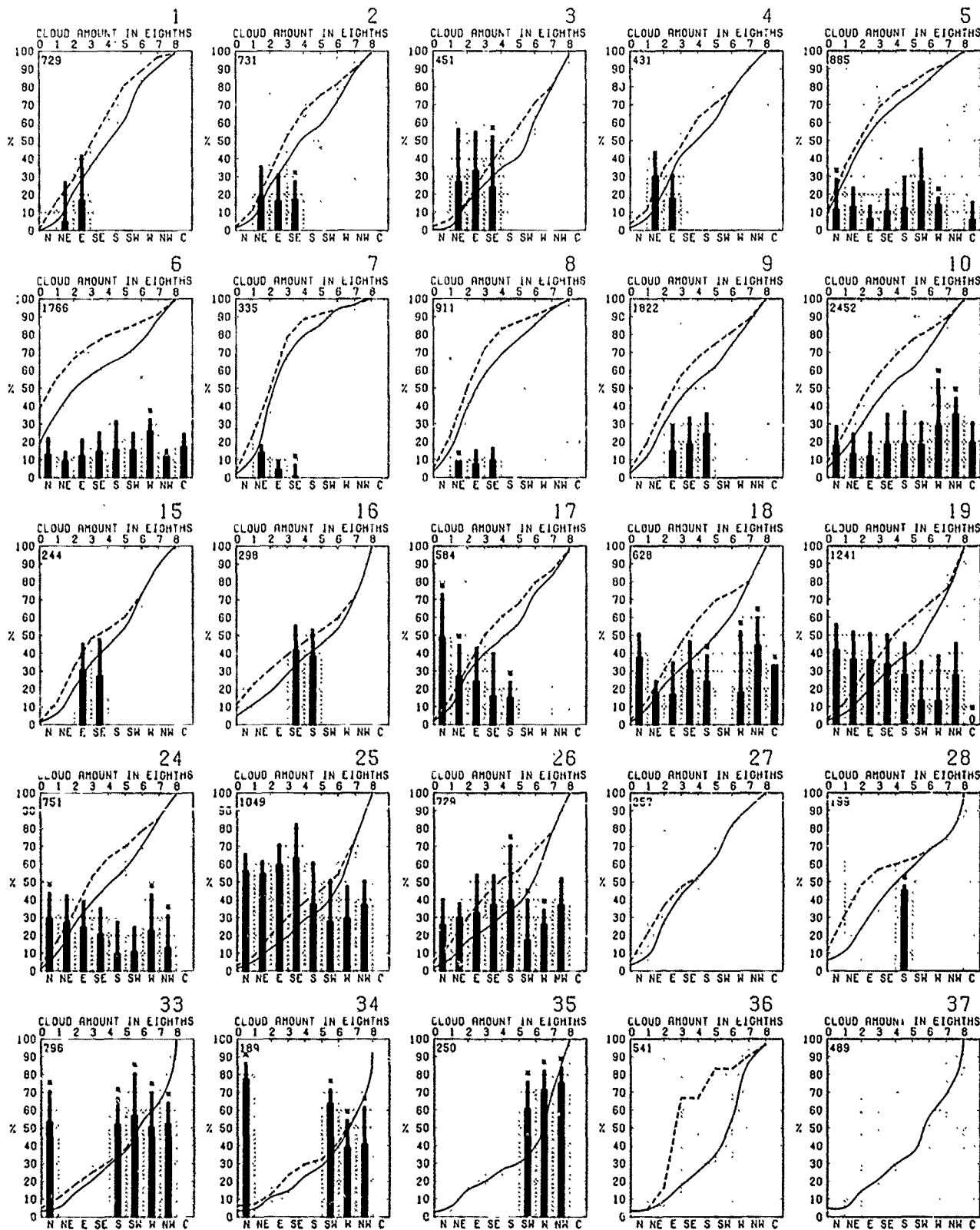
observations of wind
h when no low cloud
m 0 or bar is omitted when
a wind d rction or calm is

in that were accompanied by

HS

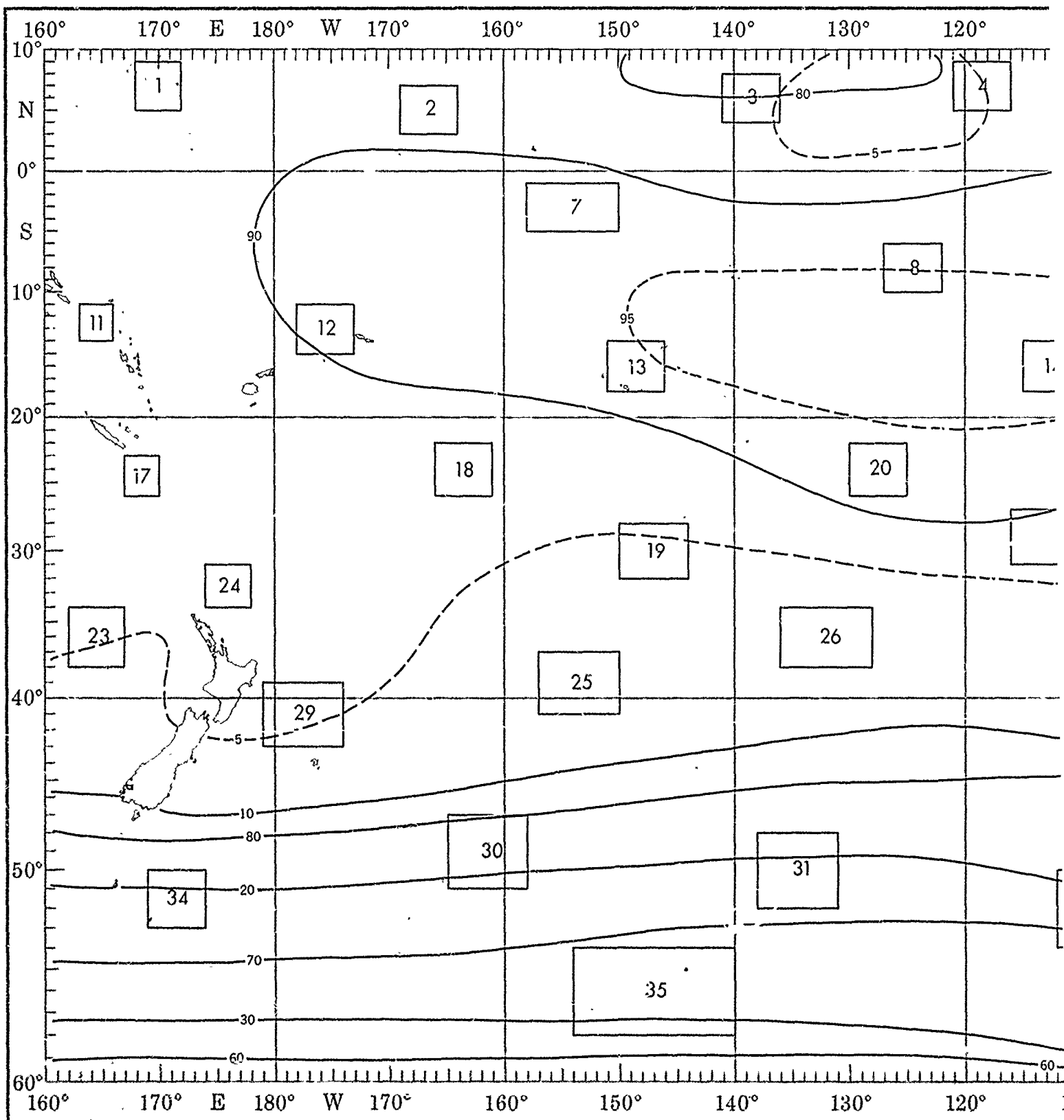
HS

HS



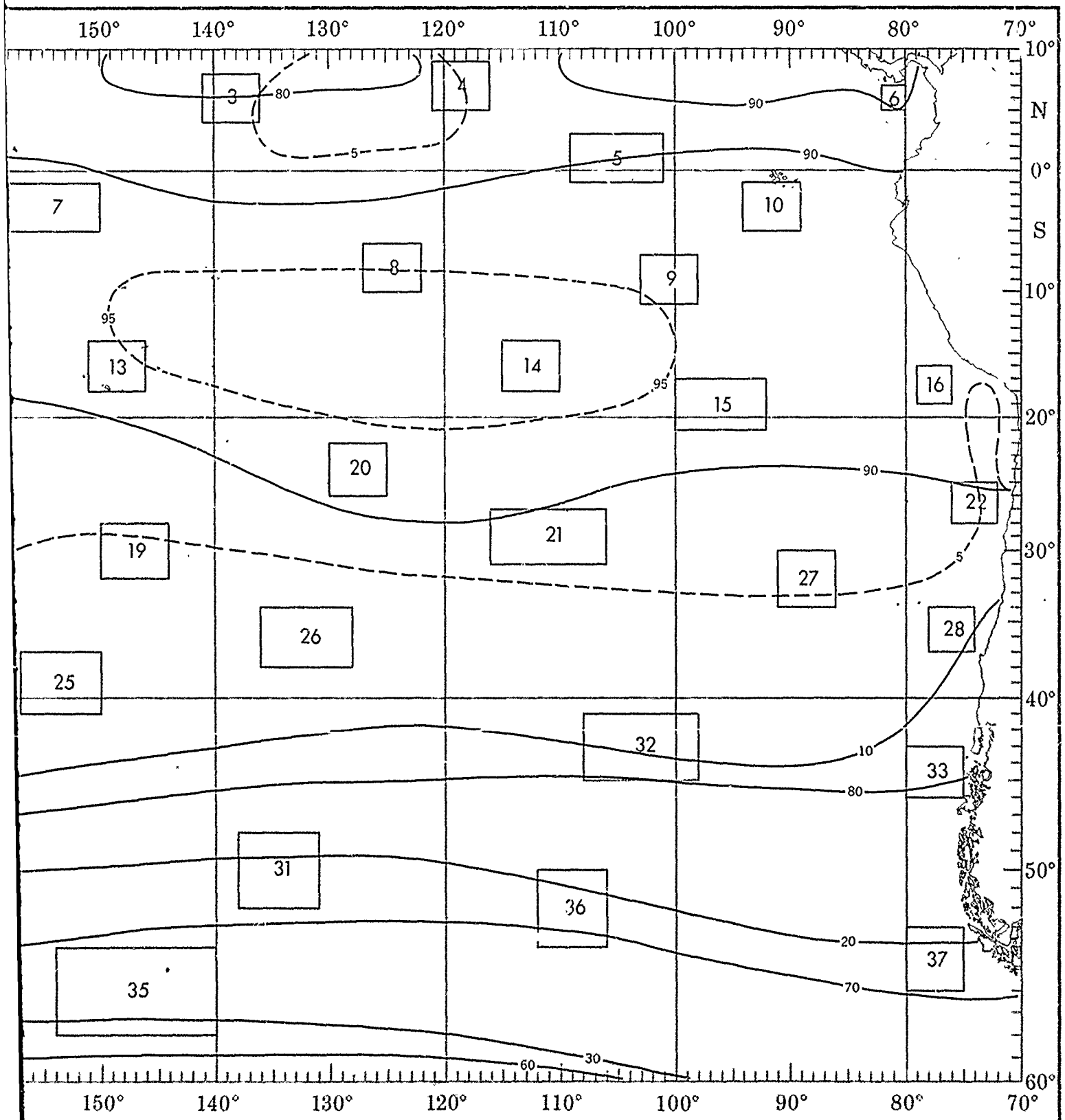
the objective compilation of available data for specified areas without regard to suspected biases.
ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

MARCH



7

CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Obscurements are included under ceiling "0 < 15".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles)

.. indicates $< 5\%$ but > 0 .

Number of observations.

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	3	13	64
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	4
20<35	0	0	1	1	2	2
10<20	0	0	1	1	2	1
6<10	0	1	0	0	0	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

334

BLUE LINE Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	1	9	48
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	4
10<20	0	0	0	0	2	15
6<10	0	0	0	1	1	10
3<6	0	0	0	0	2	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

81

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	70
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	1
10<20	0	1	0	1	4	4
6<10	0	0	1	3	1	7
3<6	0	0	0	1	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

142

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	7	69
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	2
10<20	0	0	0	0	4	6
6<10	0	0	0	1	1	2
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

629

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	7
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	2
20<35	0	0	0	0	0	4
10<20	0	0	0	0	1	8
6<10	0	0	0	0	1	5
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

848

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	11	42
50<80	0	0	0	0	2	2
35<50	0	0	0	0	1	2
20<35	0	0	0	2	4	6
10<20	0	0	0	2	4	13
6<10	0	0	0	3	1	5
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

114

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	5	43
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	3
20<35	0	0	0	0	4	14
10<20	0	0	0	0	0	18
6<10	0	0	0	0	1	7
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

211

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	79
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	3
10<20	0	0	0	0	1	7
6<10	0	0	0	1	2	2
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

755

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	73
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	6
20<35	0	0	0	0	0	1
10<20	0	0	0	0	1	4
6<10	0	0	0	0	1	3
3<6	0	0	0	1	2	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	1

145

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	5	31
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	3
20<35	0	0	0	0	0	15
10<20	0	0	0	0	5	19
6<10	0	0	0	0	2	9
3<6	0	0	0	0	0	2
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

259

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	49
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	2
20<35	0	0	0	0	1	7
10<20	0	0	0	1	4	15
6<10	0	1	0	2	4	7
3<6	0	0	0	0	1	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

1051

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	62
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	4
10<20	0	0	0	0	1	11
6<10	0	0	0	0	4	5
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

409

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	35
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	1
20<35	0	0	0	0	2	11
10<20	0	0	0	0	1	16
6<10	0	0	0	1	4	9
3<6	0	0	1	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

513

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	45
50<80	0	0	0	0	0	2
35<50	0	0	0	0	1	2
20<35	0	0	0	0	2	11
10<20	0	0	0	0	4	16
6<10	0	0	0	0	3	6
3<6	0	0	0	0	1	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

652

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	7	30
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	3
20<35	0	0	0	0	0	3
10<20	0	0	0	3	0	10
6<10	0	0	0	7	7	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	3	7	0	3	0	0

30

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	18	47
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	0
20<35	0	0	0	0	12	12
10<20	0	0	0	0	6	6
6<10	0	0	0	0	0	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

17

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	9	24
50<80	0	0	0	0	0	0
35<50	0	0	0	1	0	1
20<35	0	0	0	1	7	9
10<20	0	0	0	2	7	16
6<10	0	0	0	3	7	0
3<6	0	0	0	1	0	5

MARCH

(hundreds of feet)

n low cloud amount

of $N_h < 5/8$ visibility ≥ 5 but < 10

5 nautical miles

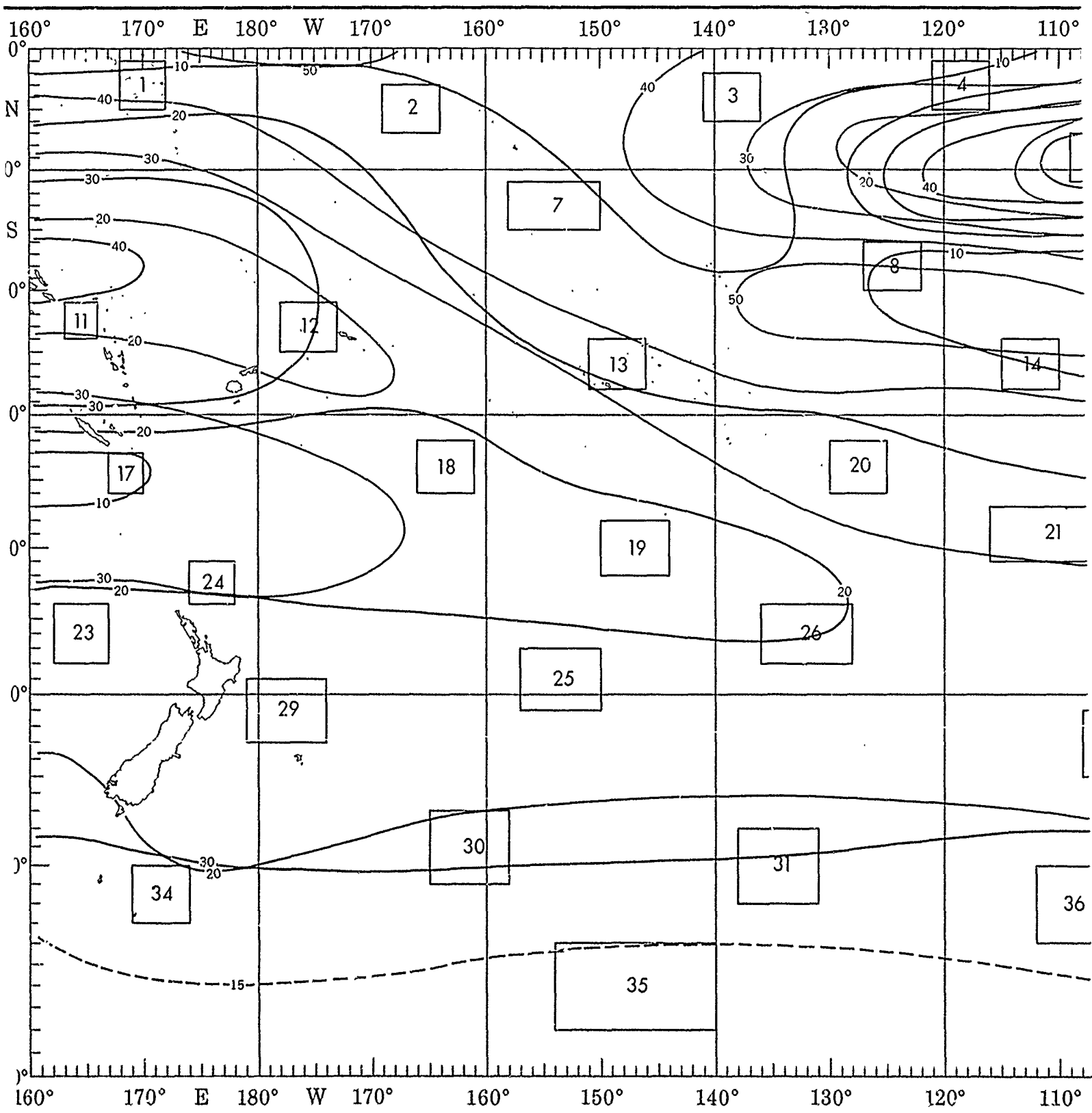
[illegible]

INSUFFICIENT
DATA

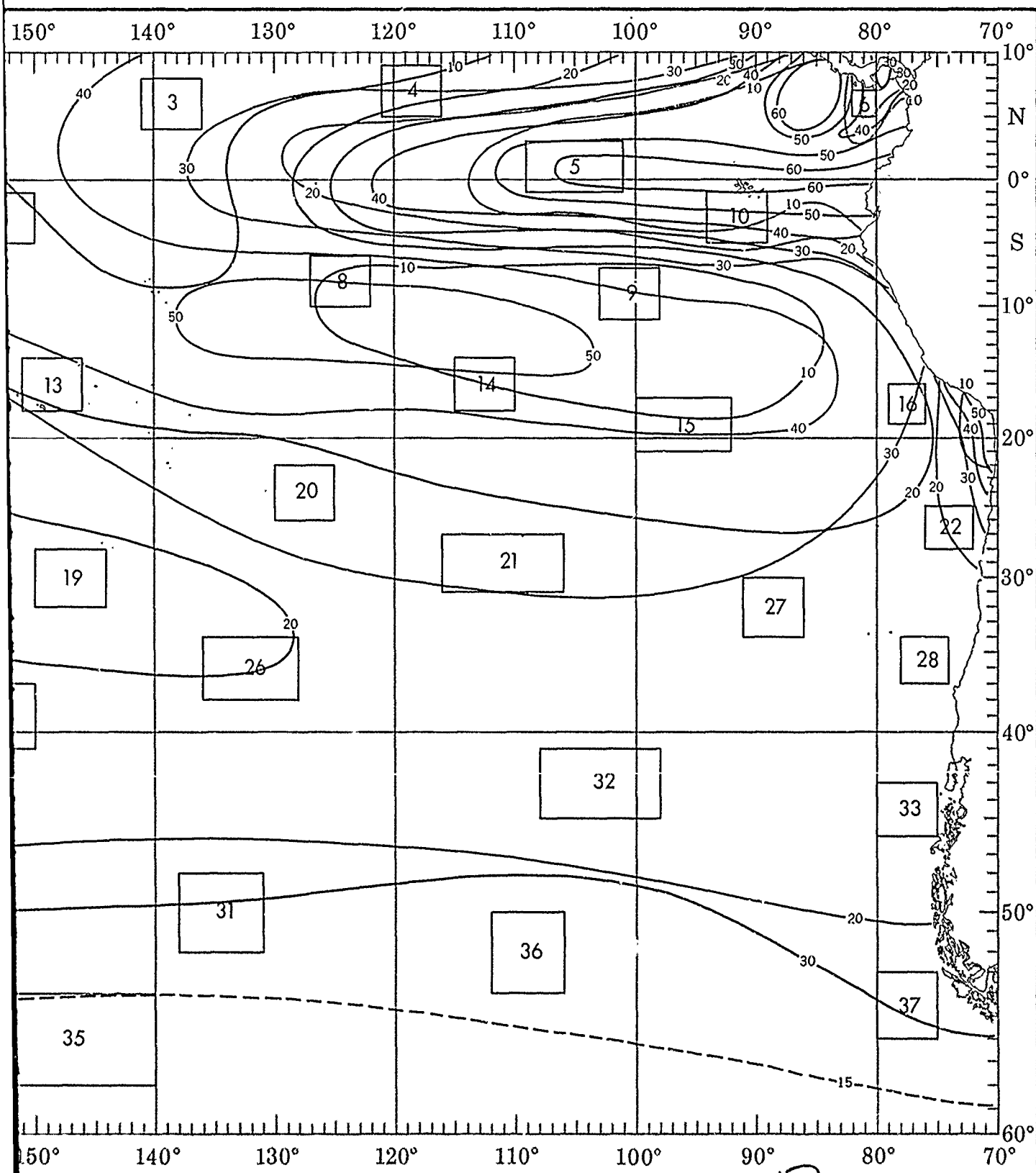
jective compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

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WIND-V



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbty) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (KNOTS)

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	+	1	1	+	0
<6 & OR <2	2	2	1	1	+
Vsbty <2	1	2	1	1	+
<10 & OR <2	3	4	2	1	1
<20 & OR <5	8	9	6	5	2
Vsbty ≥5	9	11	12	3	1
≥50 & ≥5	12	13	15	7	3
NC & ≥10	4	2	1	+	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is ≥5/8.

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥8000 feet as well as occurrences of N_h <5/8.

+ indicates <5% but >0.

1234 ← Number of observations

Conditions for Carrier Operations

BLUE LINE Percent frequency of optimum conditions. LCC ≥5000 ft, (or no LCC), Vsbty ≥5 nm, and Wind 11-21 kts.

RED LINE Percent frequency of poor conditions. Any one of the following constitutes poor conditions. LCC <300 ft, Vsbty <1 nm, Wind <6 or ≥34 kts

Satisfactory conditions between poor and optimum

11

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	1	0	3	0	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	1	8	6	1	0
<20 & OR <5	1	23	10	1	0
Vsbty ≥5	11	58	27	1	0
≥50 & ≥5	10	33	14	0	0
NC & ≥10	10	27	11	0	0

79

12

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	3	0	0
Vsbty <2	0	0	1	0	0
<10 & OR <2	1	4	11	0	0
<20 & OR <5	1	6	15	1	0
Vsbty ≥5	14	45	33	1	0
≥50 & ≥5	11	40	23	0	0
NC & ≥10	11	37	21	0	0

142

13

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	+	1	+	+
Vsbty <2	0	0	+	0	0
<10 & OR <2	+	3	2	+	1
<20 & OR <5	+	7	8	1	1
Vsbty ≥5	8	45	39	5	+
≥50 & ≥5	8	35	30	3	0
NC & ≥10	8	33	26	2	0

618

14

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	+	0	+	+	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	+	2	4	1	0
<20 & OR <5	+	5	10	1	0
Vsbty ≥5	3	38	56	3	0
≥50 & ≥5	2	32	42	2	0
NC & ≥10	2	31	41	2	0

648

15

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	1	0	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	0	0	10	0	0
<20 & OR <5	3	7	18	2	0
Vsbty ≥5	9	25	55	5	0
≥50 & ≥5	4	18	32	4	0
NC & ≥10	4	16	20	2	0

114

16

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	+	0	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	0	5	5	0	0
<20 & OR <5	+	14	14	0	0
Vsbty ≥5	1	44	54	0	0
≥50 & ≥5	+	26	23	0	0
NC & ≥10	+	22	20	0	0

207

20

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	1	1	+	0
Vsbty <2	0	0	+	0	0
<10 & OR <2	+	2	4	+	+
<20 & OR <5	1	6	8	1	+
Vsbty ≥5	9	46	40	3	0
≥50 & ≥5	8	39	31	2	0
NC & ≥10	8	39	31	2	0

741

21

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	1	0	0	0
<6 & OR <2	0	1	1	0	1
Vsbty <2	0	0	0	0	0
<10 & OR <2	0	3	2	0	1
<20 & OR <5	0	3	6	1	1
Vsbty ≥5	8	44	43	3	1
≥50 & ≥5	8	37	33	1	0
NC & ≥10	8	33	31	1	0

144

22

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	+	0	0	0
<6 & OR <2	0	3	0	0	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	1	9	4	+	0
<20 & OR <5	2	18	15	3	0
Vsbty ≥5	10	39	42	8	0
≥50 & ≥5	6	12	15	4	0
NC & ≥10	5	9	12	4	0

259

23

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	+	+	+	+
<6 & OR <2	0	+	1	1	2
Vsbty <2	0	0	+	+	1
<10 & OR <2	+	4	7	3	3
<20 & OR <5	1	10	17	6	3
Vsbty ≥5	8	34	43	8	1
≥50 & ≥5	6	20	23	+	+
NC & ≥10	6	18	21	2	+

1028

24

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	+	1	0
<6 & OR <2	+	0	2	1	0
Vsbty <2	0	0	+	+	0
<10 & OR <2	+	2	7	3	0
<20 & OR <5	+	6	17	5	0
Vsbty ≥5	4	32	51	10	+
≥50 & ≥5	4	25	31	5	+
NC & ≥10	4	24	29	5	+

401

25

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	+	1	+	+
<6 & OR <2	0	1	1	1	+
Vsbty <2	0	1	1	+	+
<10 & OR <2	+	3	8	3	2
<20 & OR <5	1	11	19	6	3
Vsbty ≥5	4	32	44	14	3
≥50 & ≥5	2	17	17	6	+
NC & ≥10	1	16	13	5	0

509

29

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	+	+	0
<6 & OR <2	+	0	1	1	+
Vsbty <2	0	0	+	+	0
<10 & OR <2	+	3	7	2	+
<20 & OR <5	2	9	16	5	+
Vsbty ≥5	4	33	48	13	1
≥50 & ≥5	1	20	23	5	+
NC & ≥10	1	18	21	5	+

642

30

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	13	0	0	0
<6 & OR <2	0	17	0	0	0
Vsbty <2	0	13	0	0	0
<10 & OR <2	0	20	3	7	0
<20 & OR <5	0	23	17	17	0
Vsbty ≥5	0	10	33	27	7
≥50 & ≥5	0	7	17	7	7
NC & ≥10	0	7	17	7	0

30

31

INSUFFICIENT DATA

32

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	0	0	0	0
<6 & OR <2	0	0	0	0	0
Vsbty <2	0	0	0	0	0
<10 & OR <2	0	0	0	0	0
<20 & OR <5	0	0	0	12	0
Vsbty ≥5	12	18	35	24	6
≥50 & ≥5	12	18	29	6	0
NC & ≥10	12	6	24	6	0

17

33

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	1	2	0	0
<6 & OR <2	0	3	5	3	0
Vsbty <2	0	1	2	1	0
<10 & OR <2	0	7	11	4	0
<20 & OR <5	0	13	27	11	0
Vsbty ≥5	1	28	48	11	1
≥50 & ≥5	1	11	18	3	1
NC & ≥10	1	7	12	3	1

95

34

LCC - Vsbty	0-3	4-10	11-21	22-33	34
<1.5 & OR <5	0	4	9	1	0
<6 & OR <2	0	4	13	1	0
Vsbty <2	0	4	12	1	0
<10 & OR <2	1	5	14	6	1
<20 & OR <5	2	9	20	12	4
Vsbty ≥5	2	10	35	20	10
≥50 & ≥5	0	6	15	6	6
NC & ≥10	0	6	12	3	5

109

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where bi

VISIBILITY-WIND

MARCH

(V_{sky}) in nautical

when low cloud amount

g < 1000 feet and/or

ances of N_h < 5/8.

nd Wind 11-21 kts.

tions LCC < 300 ft.

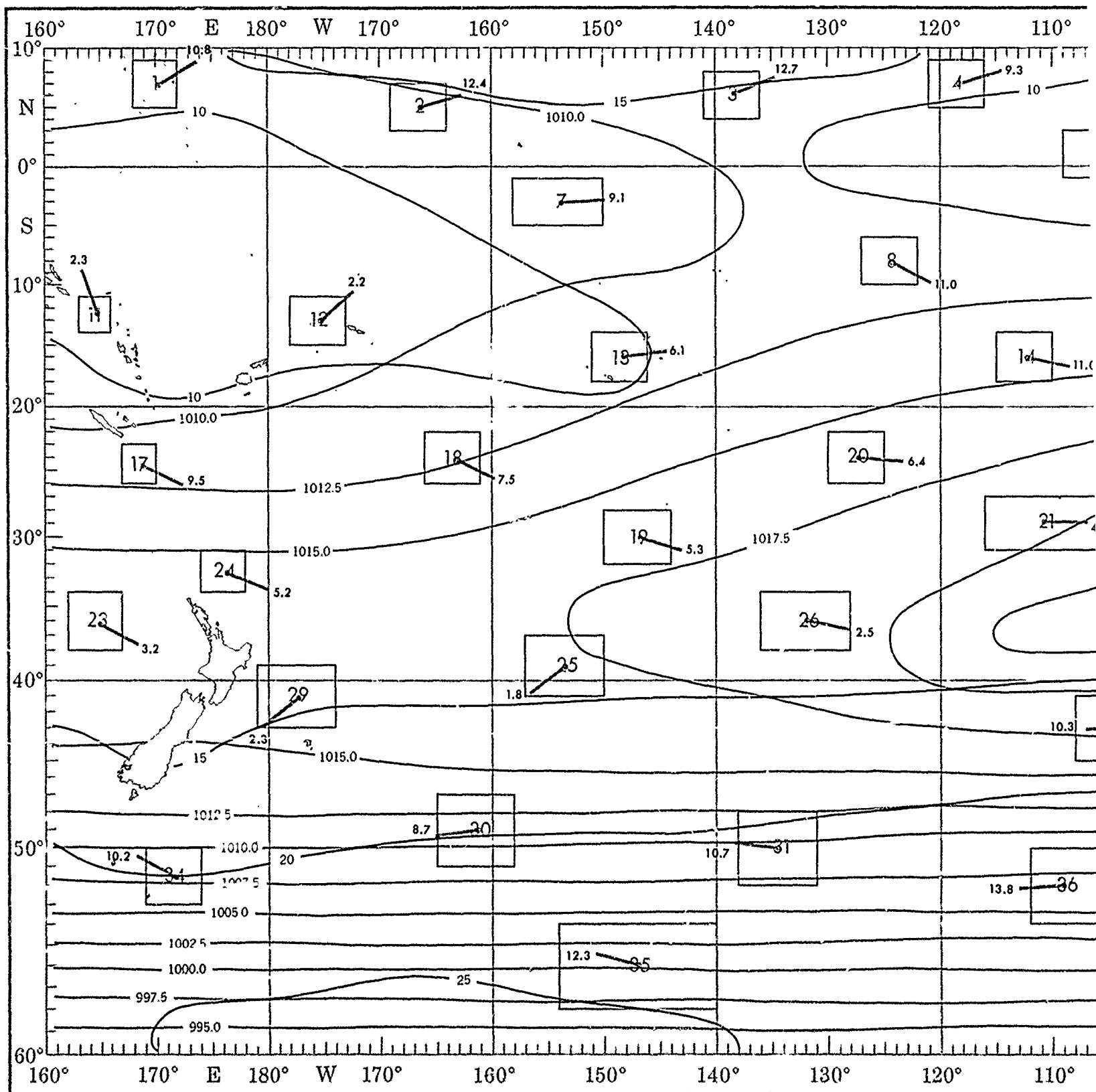
1	2	3	4	5
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2
<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5
VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5
NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
210	293	250	172	533
6	7	8	9	10
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
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VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
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NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
932	182	531	1039	1347
14	15	16	17	18
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2
<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5
VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5
NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
848	114	207	260	348
23	24	25	26	27
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2	<10 4 OR <2
<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5
VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5
NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
1028	401	509	308	19
32	33	34	35	36
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
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<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5
VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5
NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
17	95	109	72	
37	38	39	40	41
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5	<1.5 4 OR <5
<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2	<6 4 OR <2
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<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5	<20 4 OR <5
VSBY >5	VSBY >5	VSBY >5	VSBY >5	VSBY >5
>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5	>50 4 >5
NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10	NC 4 >10
14				

INSUFFICIENT
DATA

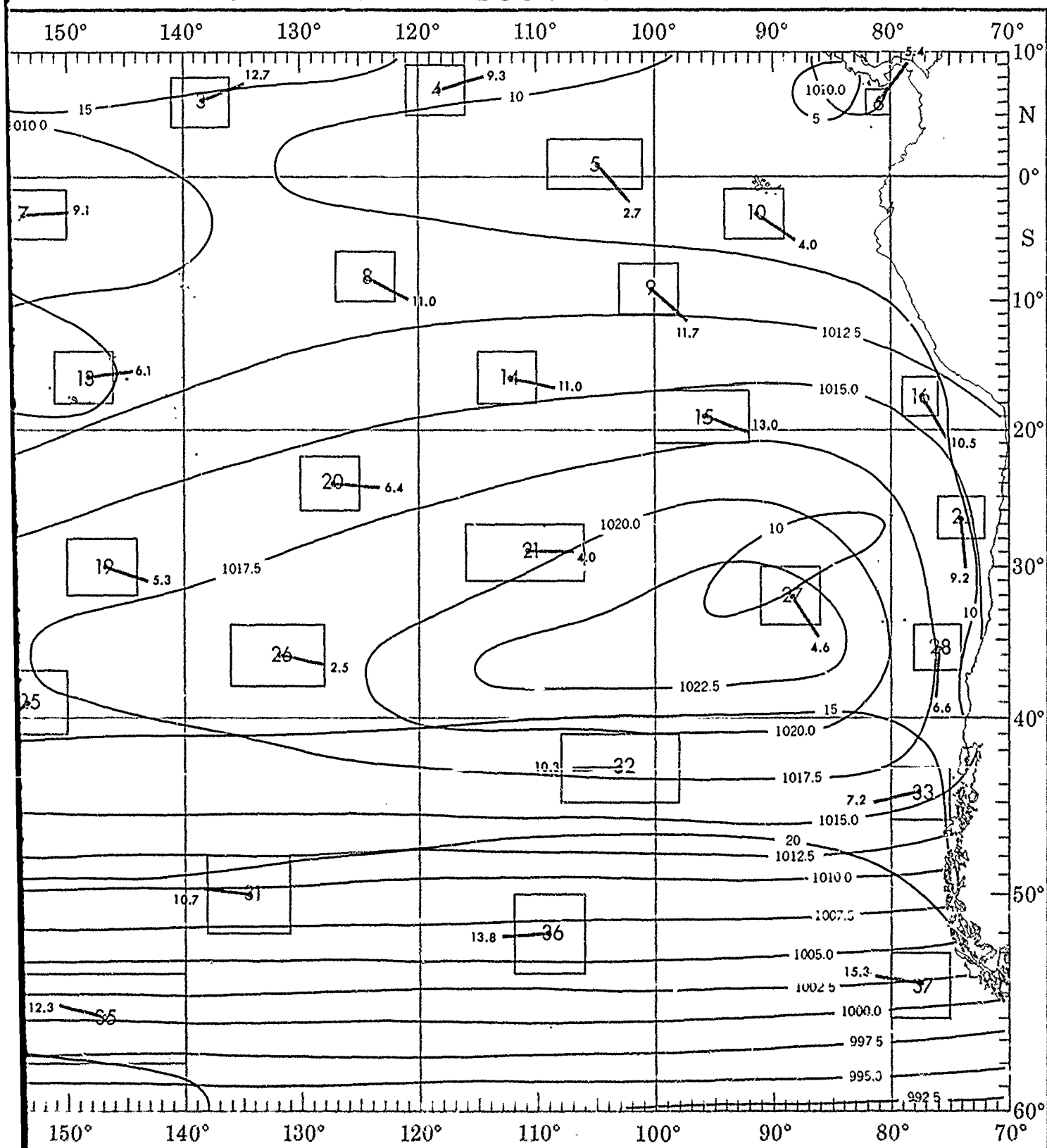
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

MARCH

SEA LEVEL PRESSURE



SEA LEVEL PRESSURE AND MEAN WIND



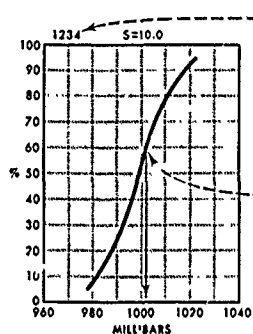
11

1

2

SEA LEVEL PRESSURE

Sea level pressure and mean wind.



* Cumulative percent frequency of sea level pressures equal to or less than the pressure intersected by the curve.

S=Standard deviation of pressure (mbs).

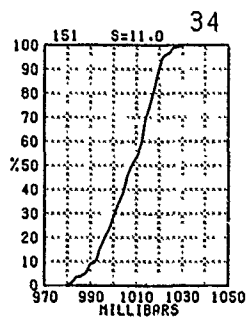
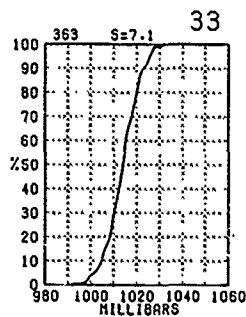
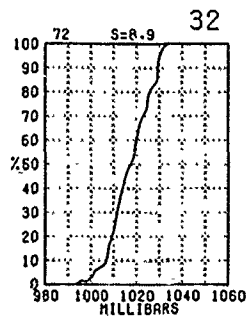
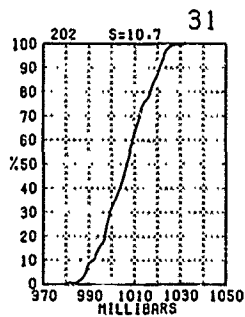
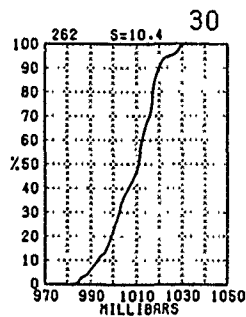
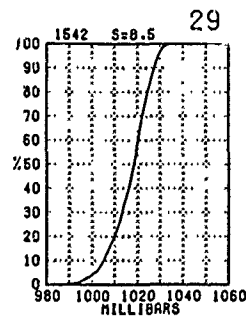
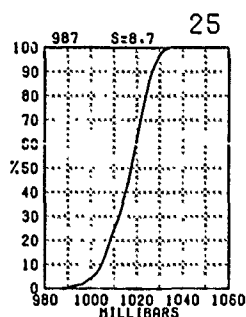
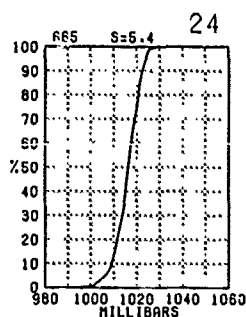
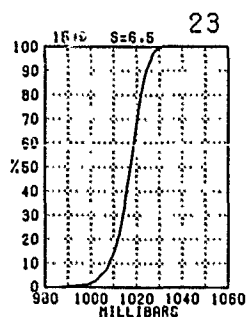
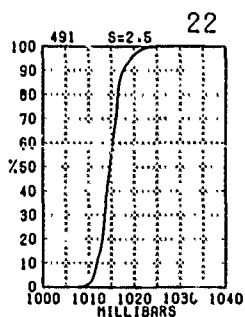
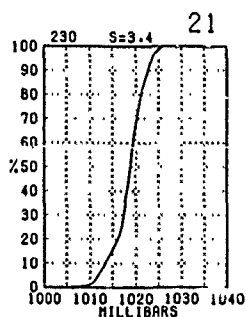
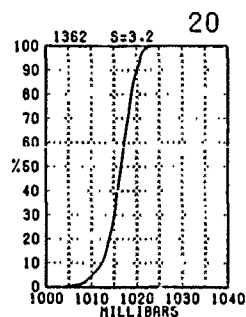
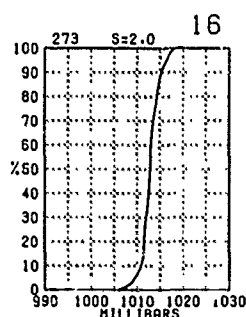
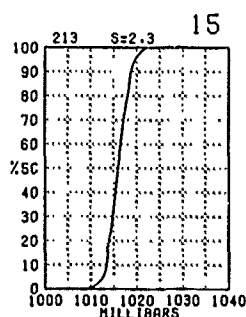
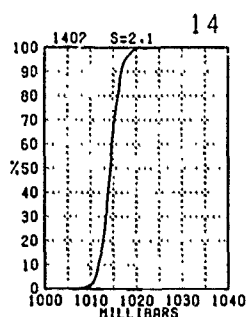
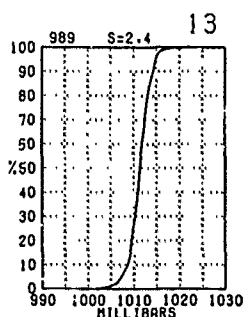
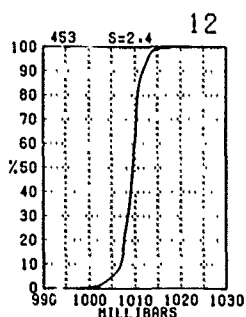
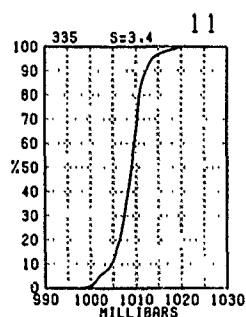
(60% of all observed sea level pressures were ≤ 1002 millibars.)

Vector mean wind is plotted from the direction which the mean flow occurs with the magnitude in knots at the end of the vector.

10.2 Vector mean wind is from the northeast at 10.2 knots.

BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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MARCH

pressures equal to or less than the

millibars.)

with the mean flow occurs with the

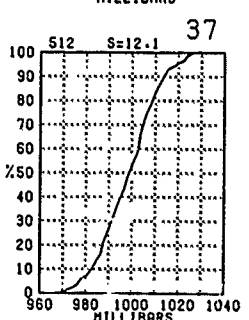
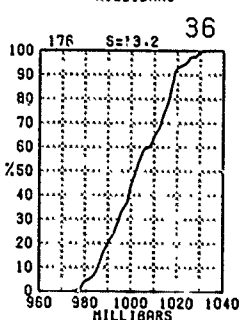
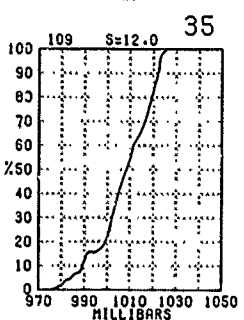
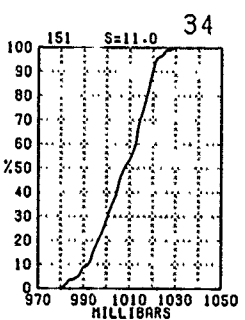
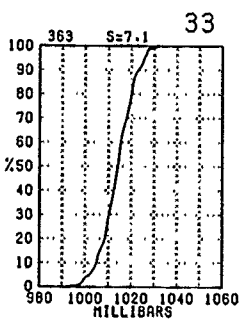
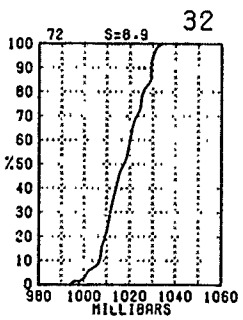
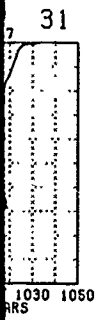
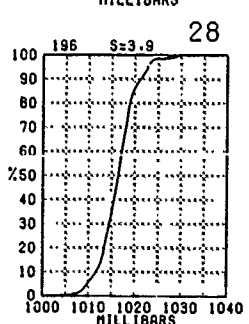
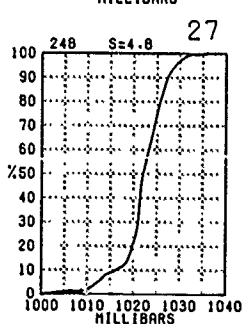
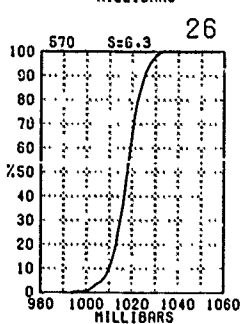
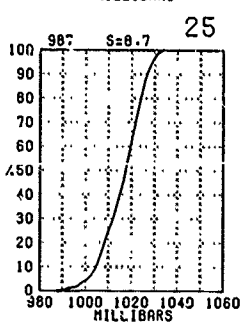
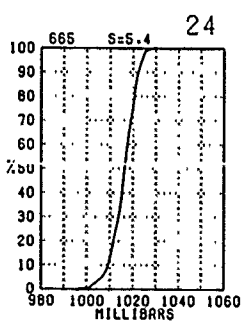
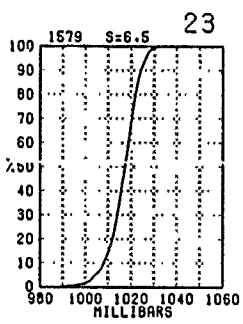
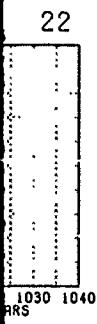
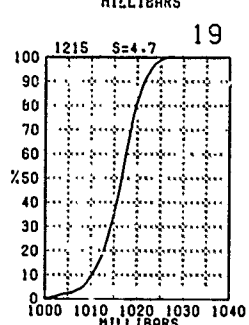
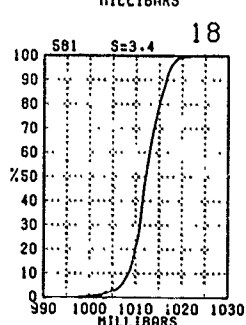
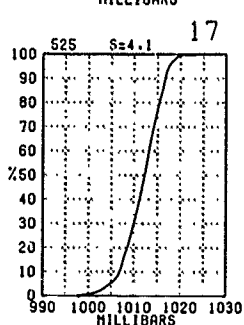
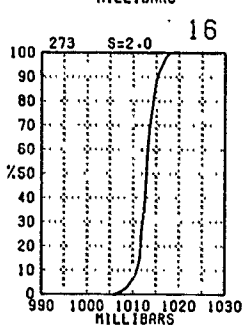
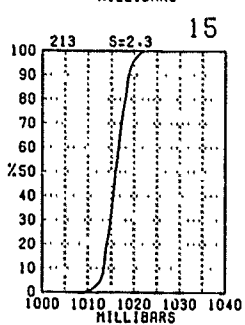
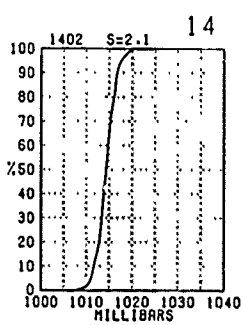
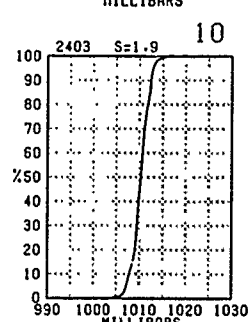
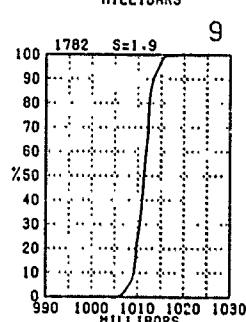
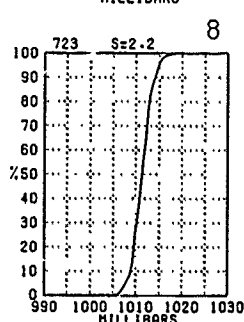
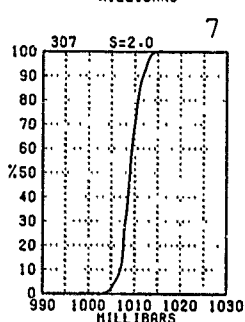
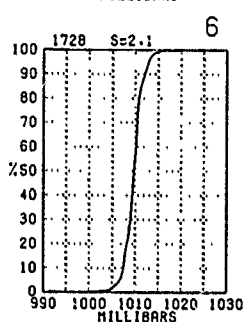
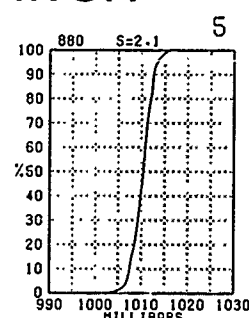
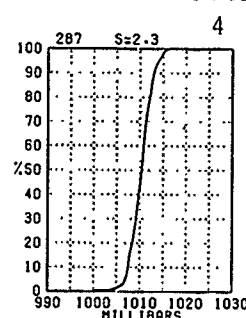
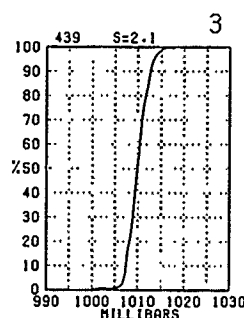
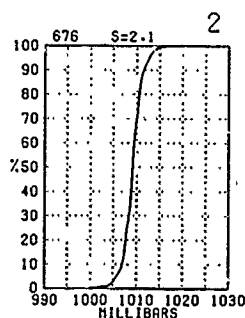
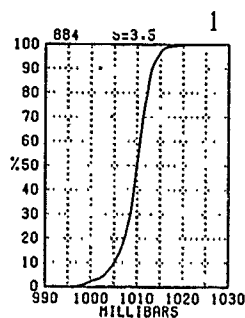
at 102 knots

13

22

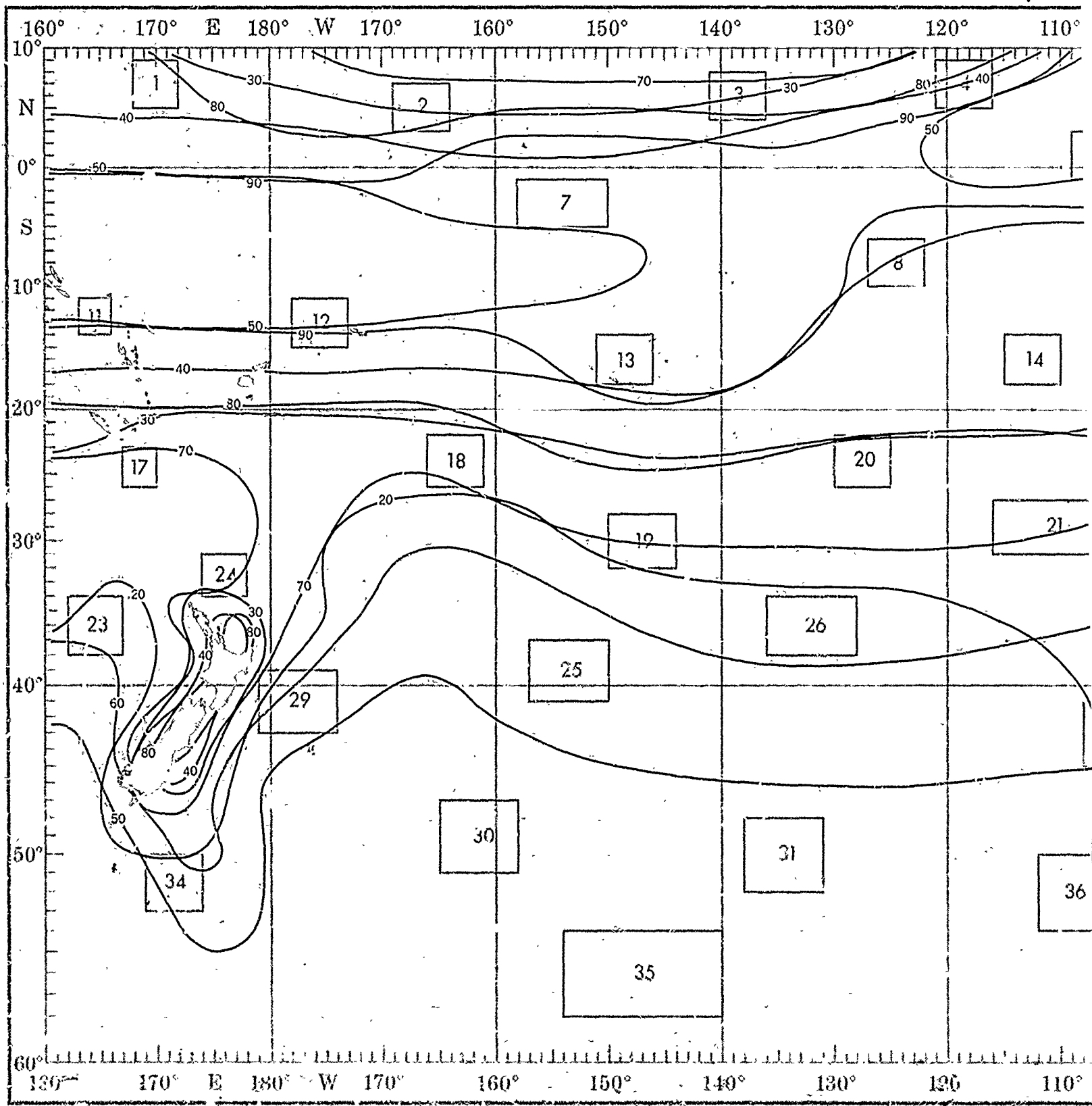
31

present the objective compilation of available data for specified areas without regard to suspected biases.
 analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

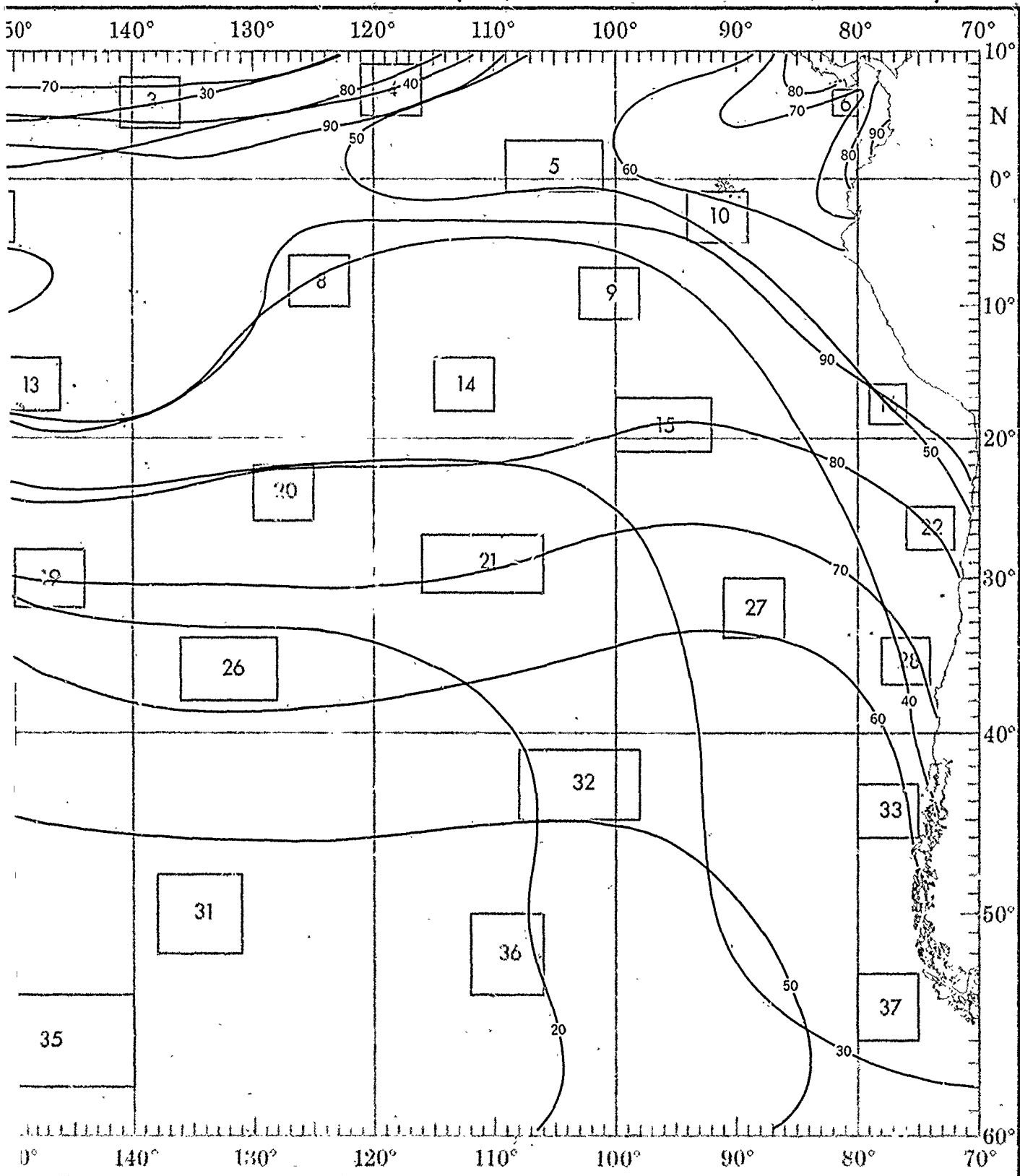


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WAVES (<1



WAVES (<1.5 AND <2.5 METERS)

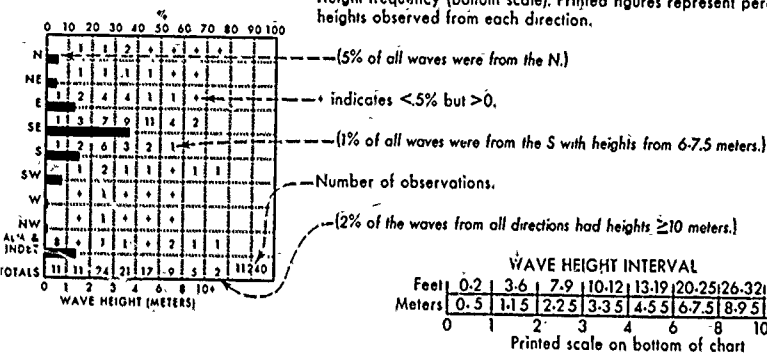


WAVE DIRECTION AND HEIGHT

Wave direction and height.

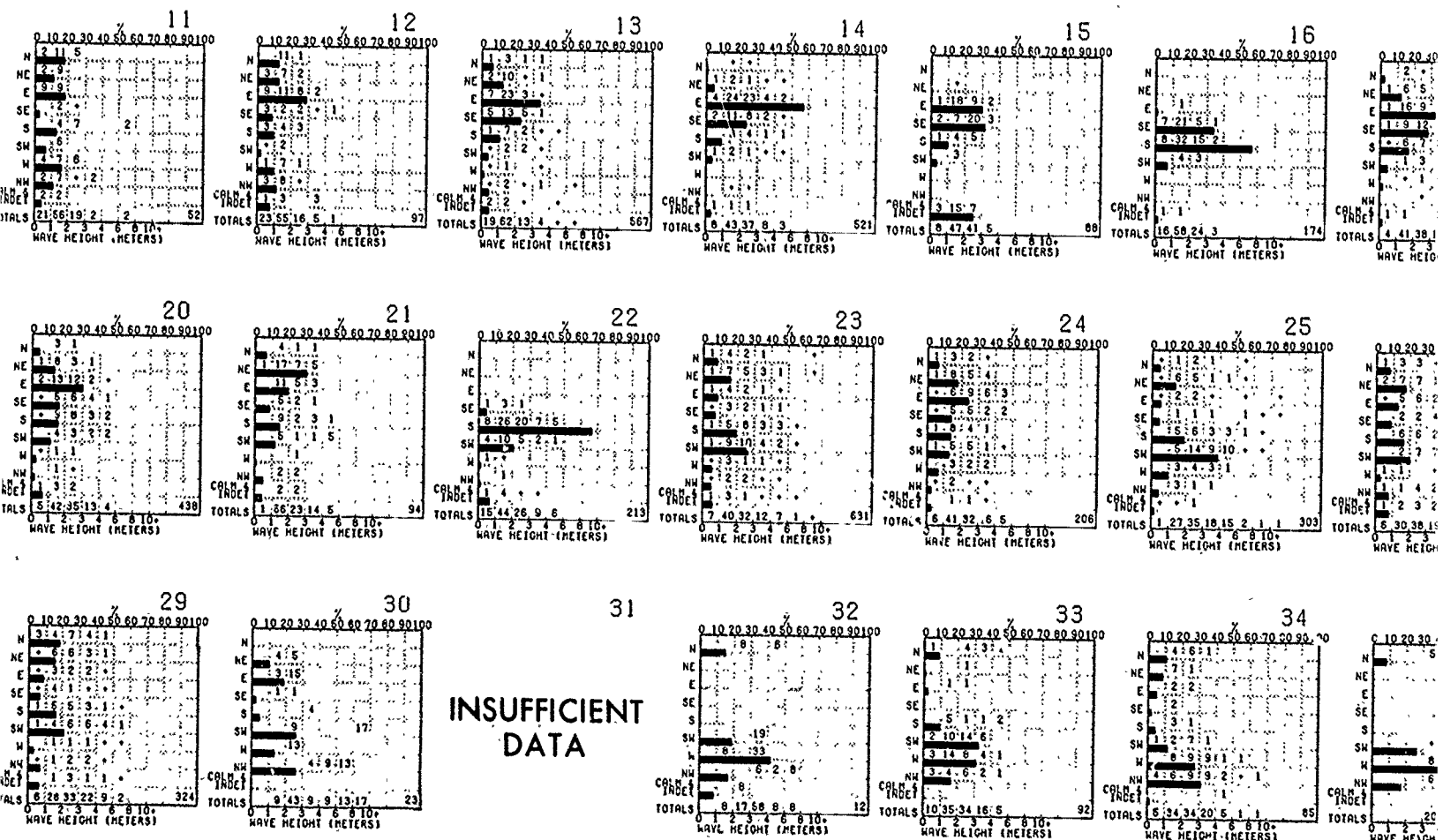
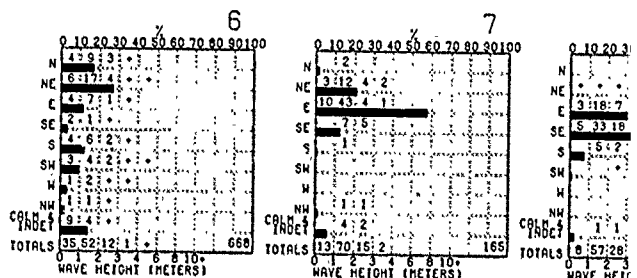
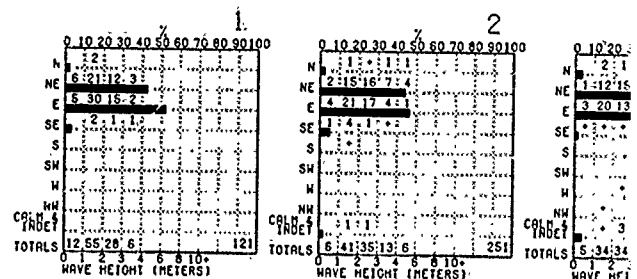
Direction frequency (top scale): Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale). Printed figures represent percent frequency of wave heights observed from each direction.



BLUE LINE - Percent frequency of wave height <1.5 meters (5 feet)

RED LINE - Percent frequency of wave height <2.5 meters (8 feet)

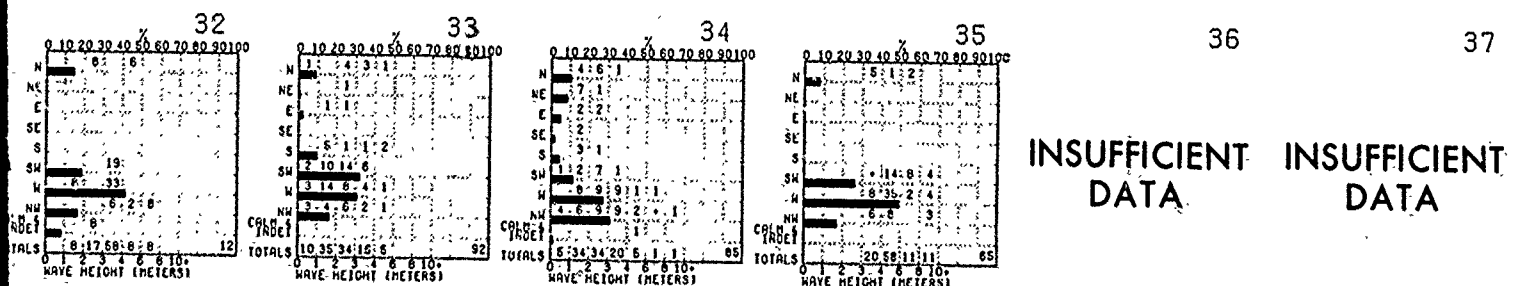
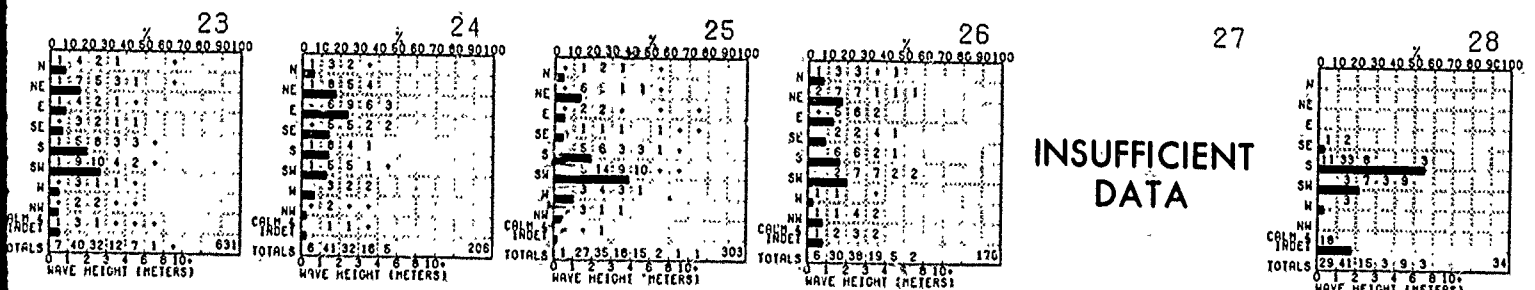
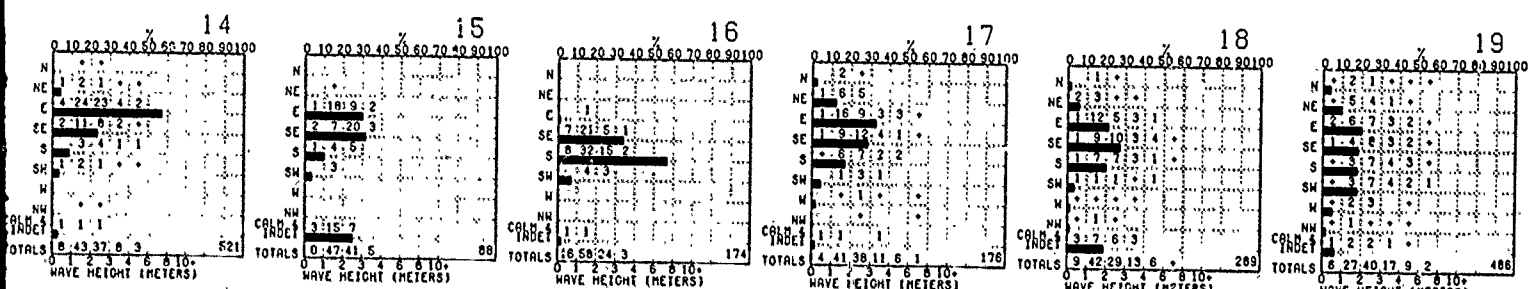
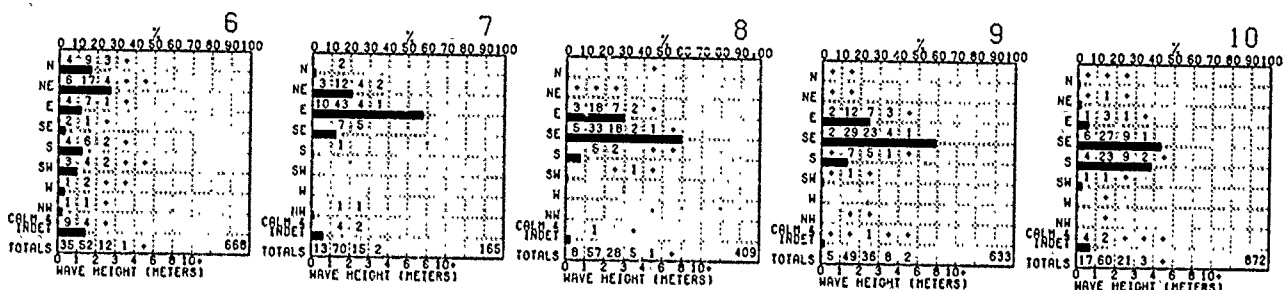
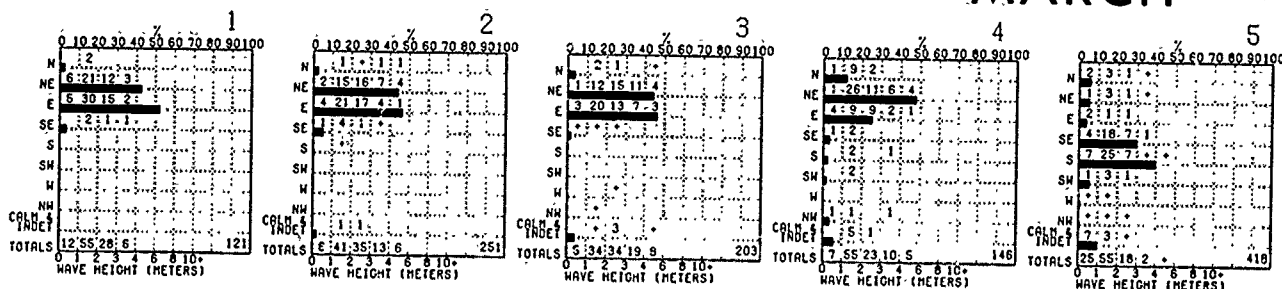


Graphs represent the objective compilation of available data for specified areas without regard to suspecte. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias was

HEIGHT

MARCH

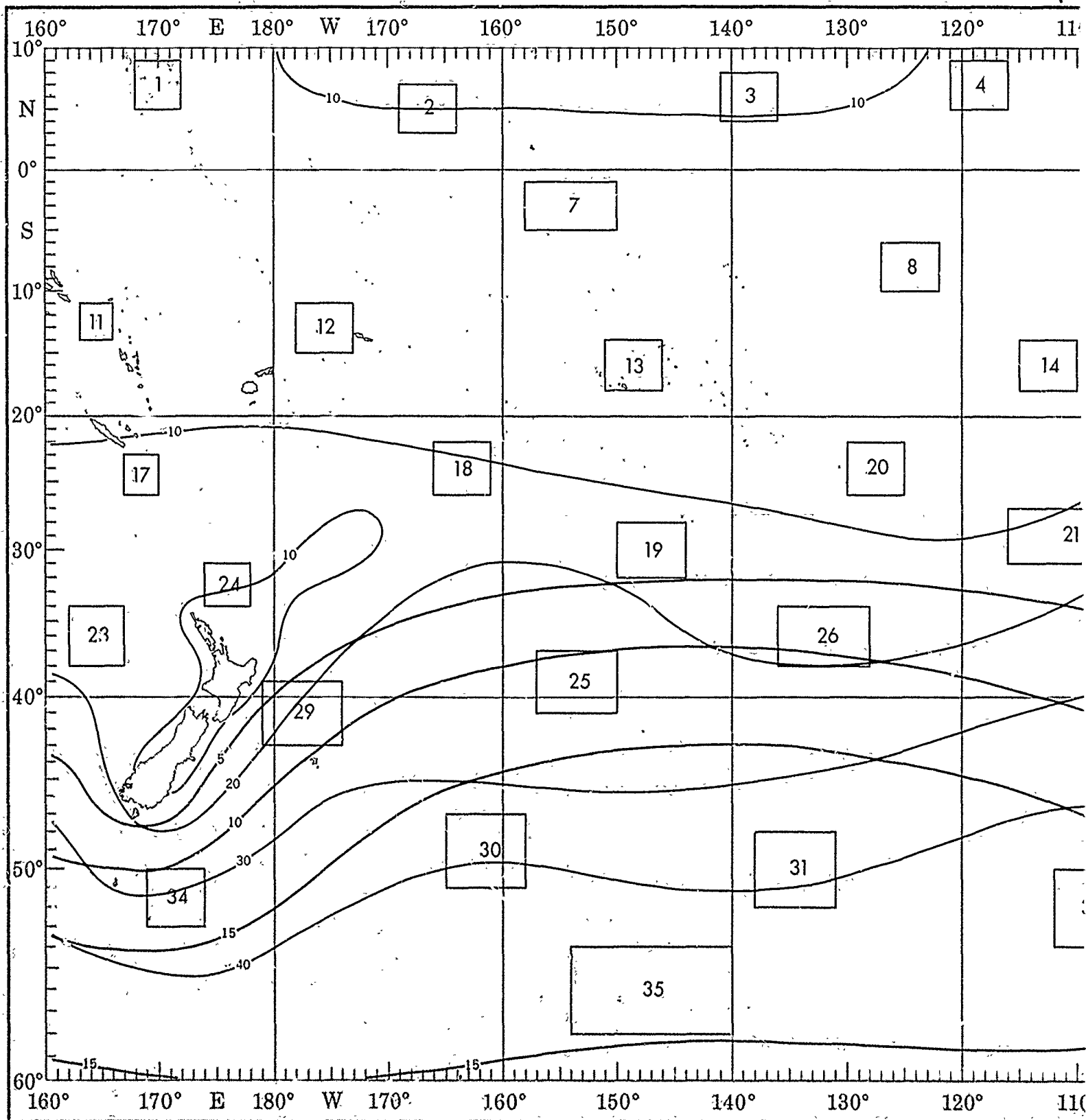
Frequency of waves from
percent frequency of wave



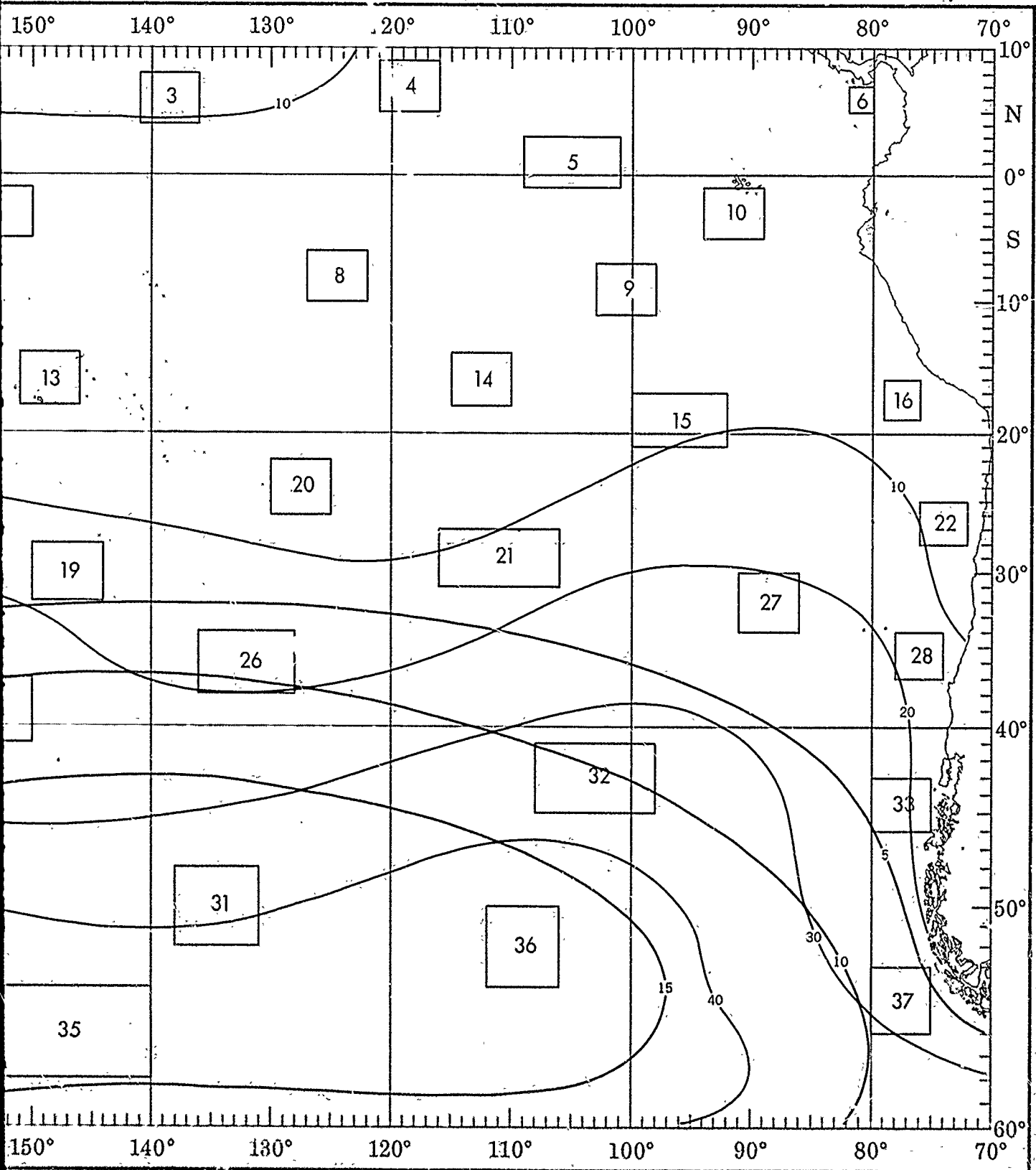
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

MARCH

WAVES (2)



WAVES (≥ 3.5 AND ≥ 6 METERS)



D

PERIOD (Seconds) ——— (2% of observed waves had a height of 1.1-1.5 meters and a period of 10-11 seconds.)

+ indicates $< 5\%$ but > 0 .

-Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

RED LINE . Percent frequency of wave height ≥ 6 meters (20 feet)

HEIGHT (INCHES)
0-5
1-1.5
2-2.5
3-3.5
4-5.5
6-7.5
8-9.5
210

NE (Cm) INFRS)
0-1.5
1-1.5
2-2.5
3-3.5
4-5.5
6-7.5
8-8.5
210

HEIGHT (MTRS)
0-1.5
1-1.5
2-2.5
3-3.5
4-5.5
6-7.5
8-9.5
≥10

Graphs represent the objective compilation of available data for specified areas without regard to size.
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

HEIGHT

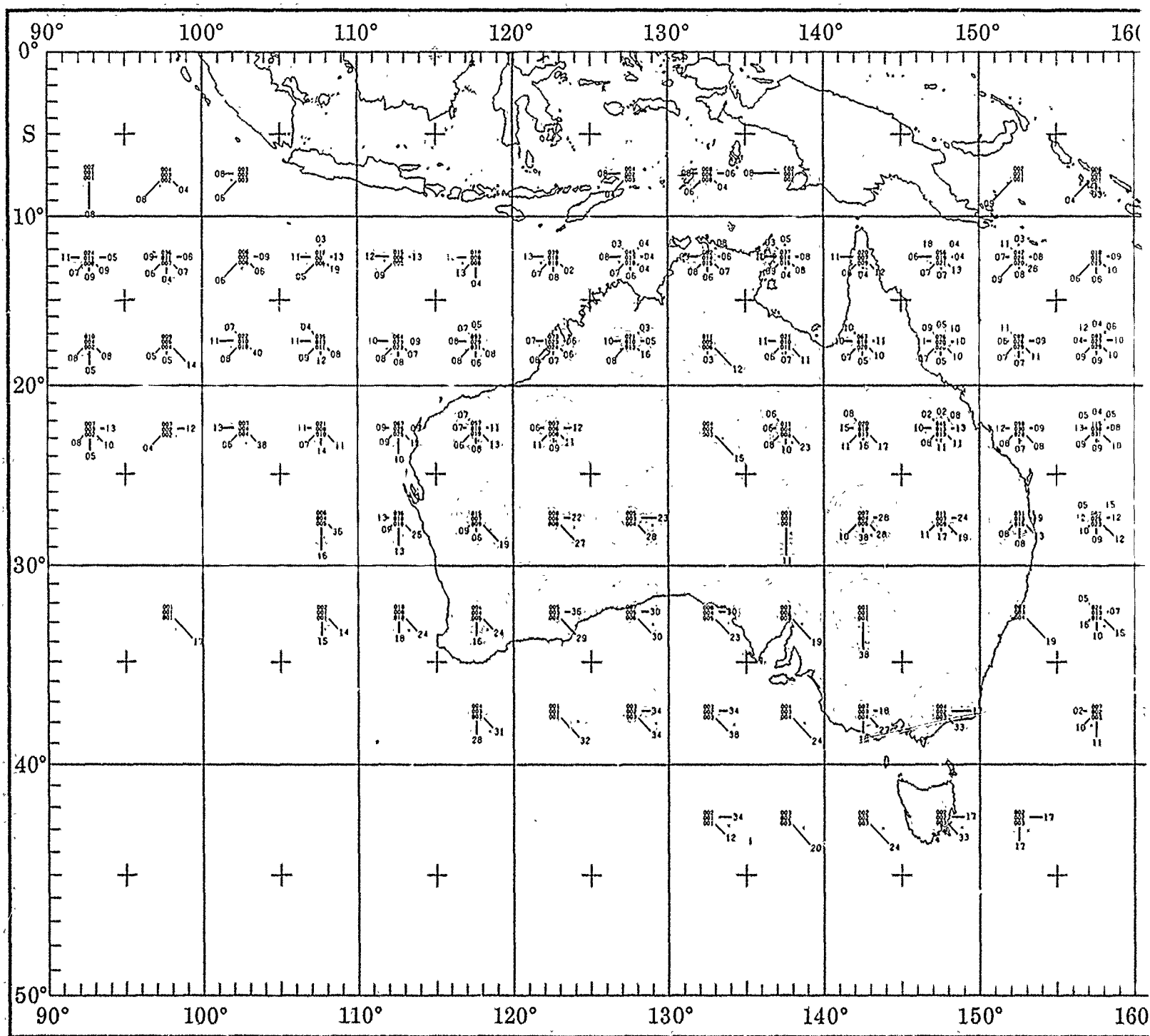
MARCH

0-11 seconds)

when both are reported If both

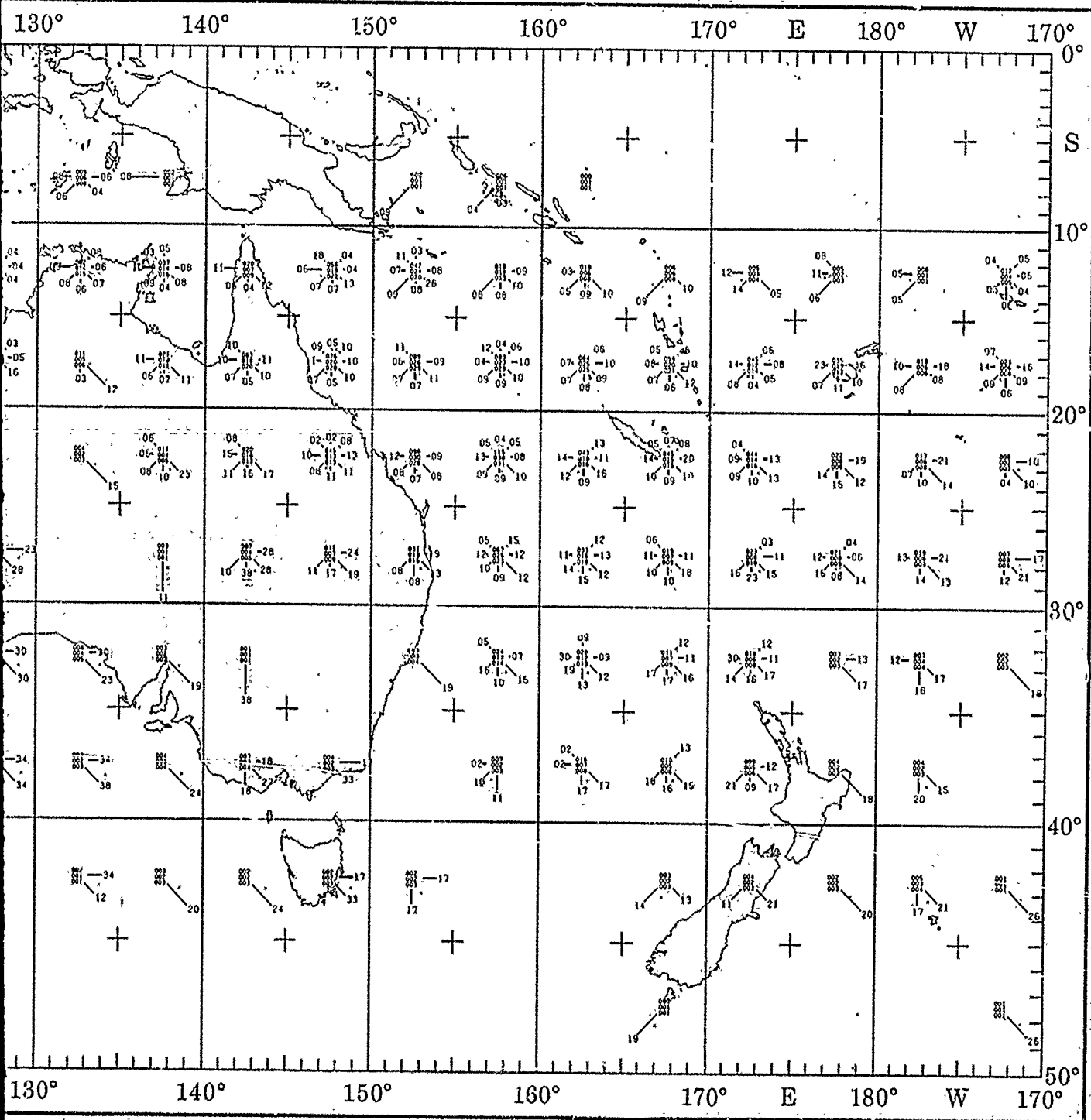
1												2												3												4												5																							
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)																							
HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND												
0-5	9	3	1	0	0	0	0	0	0	0	0	0-5	5	+	1	0	0	0	0	0	0	0	0	0-5	5	0	0	0	0	0	0	0	0	0	0-5	6	0	0	0	0	0	0	0	0	0	0-5	12	4	2	1	0	0	0	0	0	0	0-5	12	4	2	1	0	0	0	0	0	0	0			
1-1.5	24	15	11	2	0	0	0	2				1-1.5	12	18	6	1	1	1	1	1	1	1	1	1-1.5	15	7	7	1	0	1	2				1-1.5	22	13	12	3	1	1	5				1-1.5	13	18	11	5	2	1	4				1-1.5	13	18	11	5	2	1	4							
2-2.5	2	18	2	5	1	0	0					2-2.5	4	17	11	1	1	1	1	+				2-2.5	4	15	6	3	0	1	3				2-2.5	7	7	3	4	0	1	1				2-2.5	2	6	4	3	2	0	+				2-2.5	2	6	4	3	2	0	+							
3-3.5	0	1	4	0	1	0	0					3-3.5	1	4	3	3	1	+	+					3-3.5	2	8	8	0	0	0	0				3-3.5	0	3	5	0	3	0	0				3-3.5	0	0	1	1	0	0	0				3-3.5	0	0	1	1	0	0	0							
4-5.5	0	0	0	0	0	0	0	0				4-5.5	0	1	2	2	0	1	0					4-5.5	0	1	6	+	0	0	+				4-5.5	0	1	2	0	1	1	0				4-5.5	0	0	+	+	0	0	0				4-5.5	0	0	+	+	0	0	0							
6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0			
8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0			
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123												252												204												147												429																							
6												7												8												9												10																							
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)																							
HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND												
0-5	23	3	1	2	0	0	0	10				0-5	13	0	0	0	0	0	0	1				0-5	8	+	0	+	0	0	+				0-5	5	+	0	0	0	0	0	+				0-5	12	2	+	0	0	0	0	4				0-5	12	2	+	0	0	0	0	4				
1-1.5	23	11	4	2	1	2	6					1-1.5	36	14	9	7	1	0	2					1-1.5	20	19	9	3	1	1	4				1-1.5	21	16	8	1	1	1	2				1-1.5	20	16	11	4	4	1	2				1-1.5	20	16	11	4	4	1	2							
2-2.5	2	4	3	+	1	+	1					2-2.5	4	7	2	1	0	0	1					2-2.5	4	9	8	2	1	0	3				2-2.5	8	15	8	2	1	1	1				2-2.5	4	7	5	2	1	1	+				2-2.5	4	7	5	2	1	1	+							
3-3.5	+	+	+	0	+	0	0					3-3.5	0	1	2	0	0	0	0					3-3.5	+	2	2	1	+	0	0				3-3.5	1	4	1	1	+	+	1				3-3.5	+	1	1	+	+	+	+				3-3.5	+	1	1	+	+	+	+							
4-5.5	0	+	+	0	0	0	0					4-5.5	0	0	0	0	0	0	0	0				4-5.5	0	1	1	0	0	0	0				4-5.5	0	1	+	0	0	0	+				4-5.5	+	0	+	0	0	0	0	+				4-5.5	+	0	+	0	0	0	0	+					
6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	+	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0			
8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0			
>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0	0			>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0			
709												166												412												635												895																							
15												16												17												18												19																							
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)																							
HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND												
0-5	1	0	1	0	0	0	0	6				0-5	11	1	0	1	0	0	0	4				0-5	3	1	0	0	0	0	0	1				0-5	7	0	0	2	0	0	0	3				0-5	5	+	0	0	0	0	0	1				0-5	5	+	0	0	0	0	0	1			
1-1.5	14	14	1	3	0	0	15					1-1.5	23	20	5	3	2	1	4					1-1.5	13	18	5	3	1	0	1				1-1.5	14	11	5	1	1	+	8				1-1.5	12	7	4	+	+	+	3				1-1.5	12	7	4	+	+	+	3							
2-2.5	2	11	15	3	1	1	7					2-2.5	1	8	5	5	1	1	2					2-2.5	6	7	17	5	1	2	0				2-2.5	7	6	9	1	1	0	5				2-2.5	6	14	9	5	3	1	2				2-2.5	6	14	9	5	3	1	2							
3-3.5	0	0	3	1	0	0	0					3-3.5	0	3	0	0	0	0	0	0				3-3.5	1	5	3	1	1	1	0				3-3.5	1	3	2	1	1	2					3-3.5	2	3	5	3	2	2	1				3-3.5	2	3	5	3	2	2	1							
4-5.5	0	0	0	0	0	0	0					4-5.5	0	0	0	0	0	0	0	0				4-5.5	0	2	1	1	0	0	1				4-5.5	+	1	2	1	1	+	0					4-5.5	0	1	4	3	1	+	+					4-5.5	0	1	4	3	1	+	+					
6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	0	0	0	0	0	0	0				6-7.5	0	1	1	0	0	0	0				6-7.5	0	0	0	0	0	+	0				6-7.5	0	0	1	1	+	+	+	0				6-7.5	0	0	1	1	+	+	+	0					
8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0				8-9.5	0	0	0	0	0	0	0	0			
>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0	0			>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0				>10	0	0	0	0	0	0	0	0			
88												177												177												297												489																							
24												25												26												27												28																							
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)																							
HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND	HEIGHT	ENTR	6	7	8	9	10	11	12	13	14	IND												
0-5	6	+	+	0	0	0	0	+				0-5	1	0	0	0	0	0	0	0				0-5	4	0	0	1	0	0	1				0-5	0	0	0	0	0	0	0				0-5	6																								

MARCH



1

TROPICAL CYCLONE

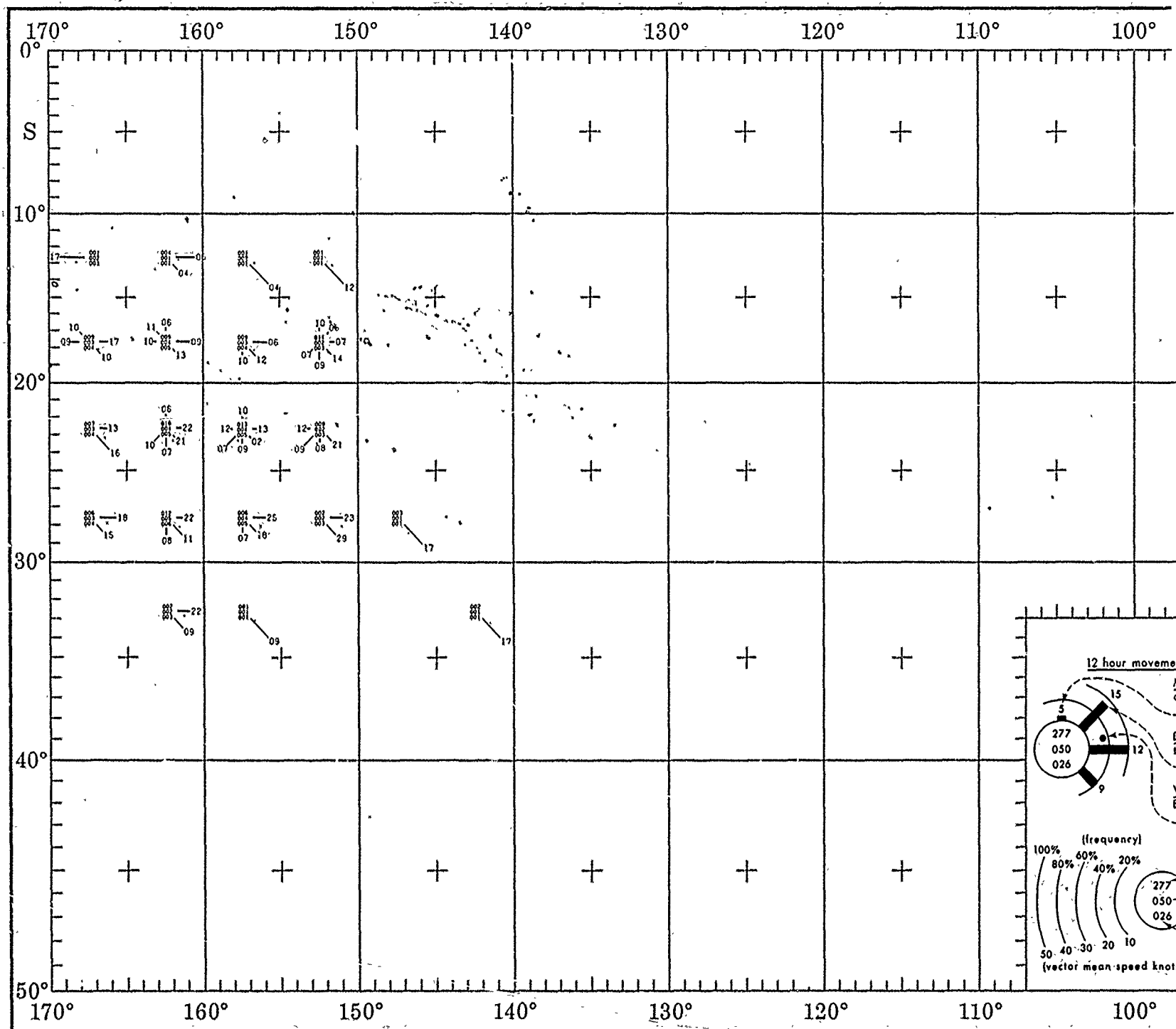


1

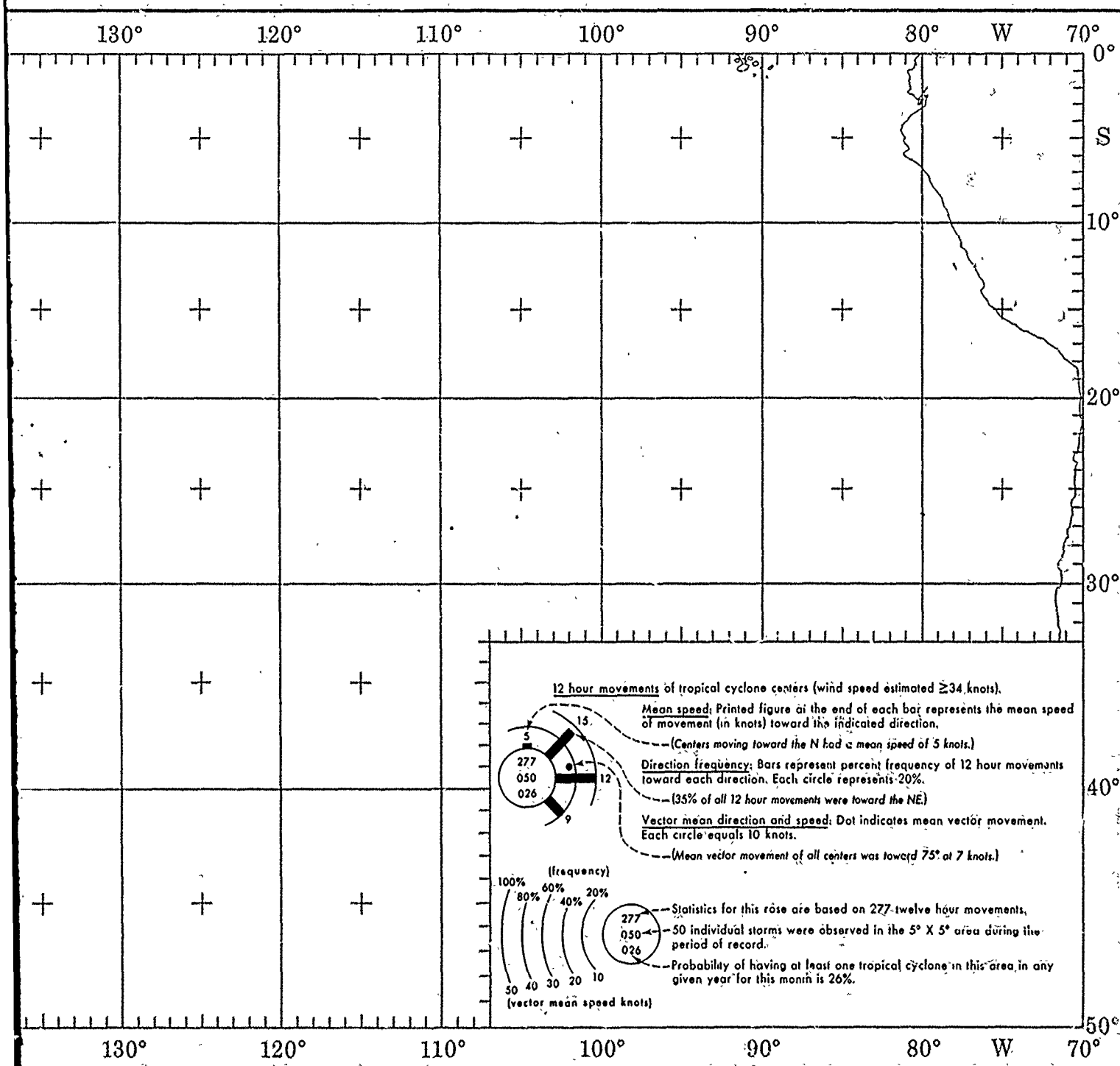
1

2

TROPICAL CYCLONE



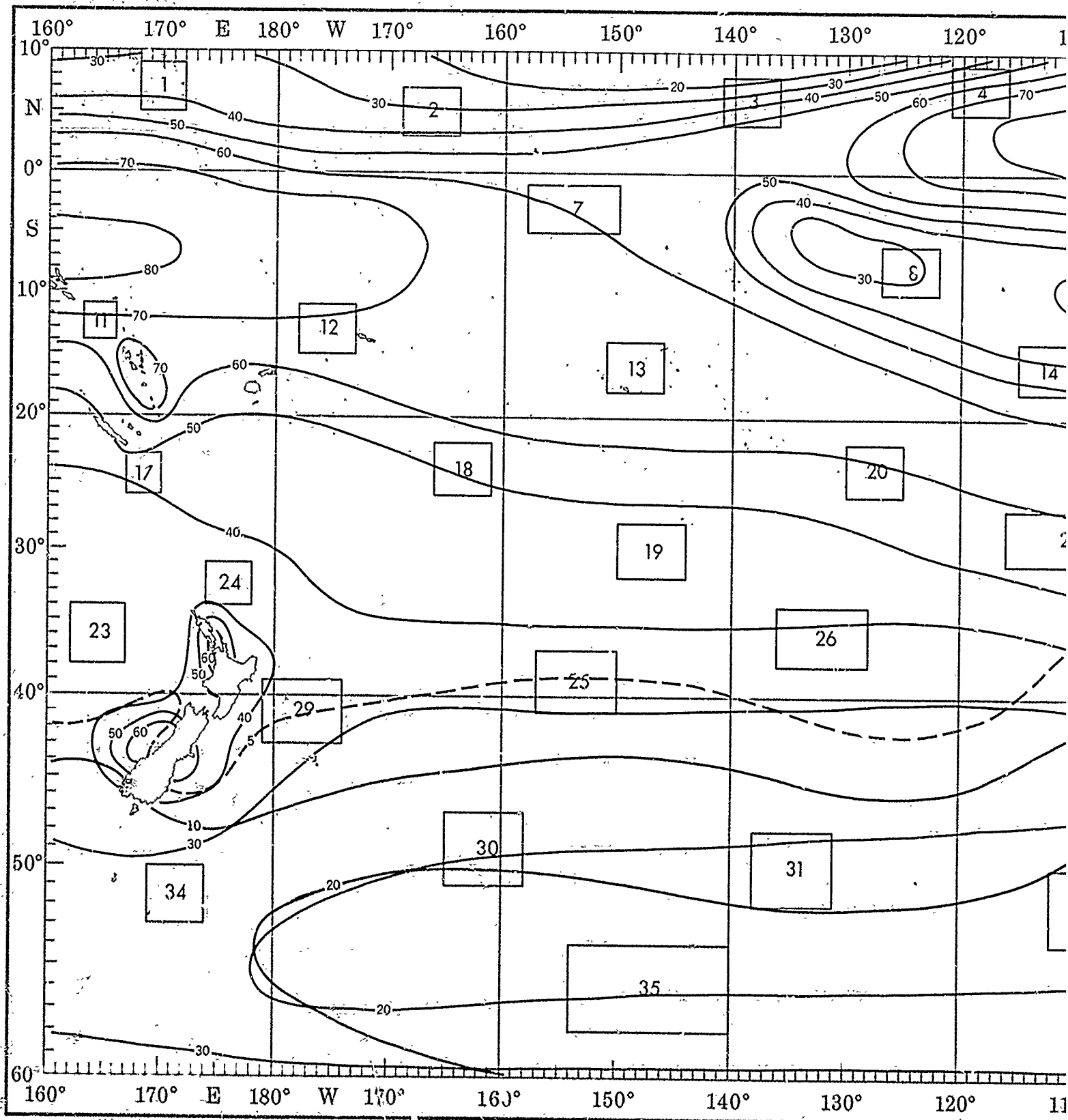
MARCH



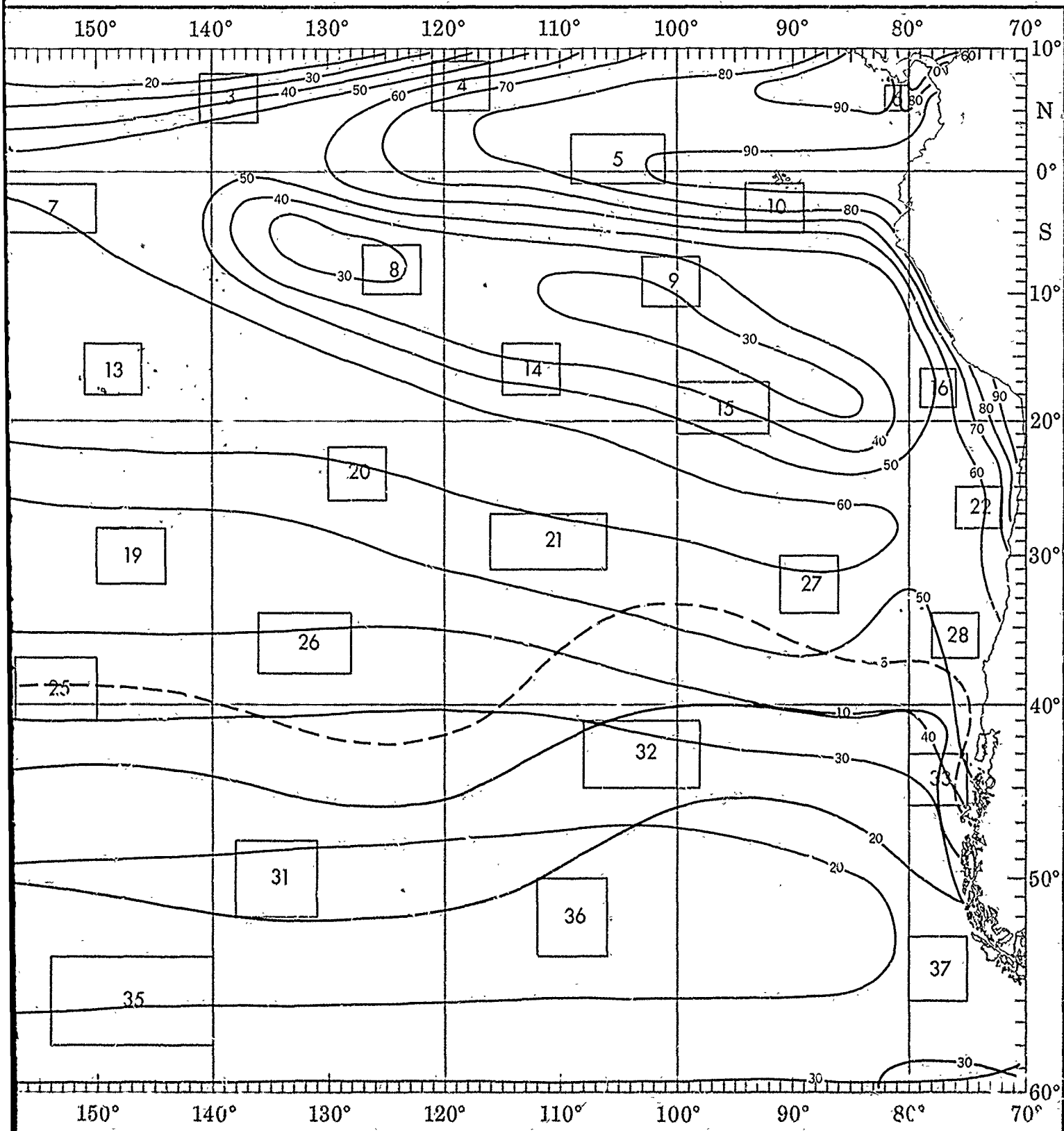
1

2

APRIL

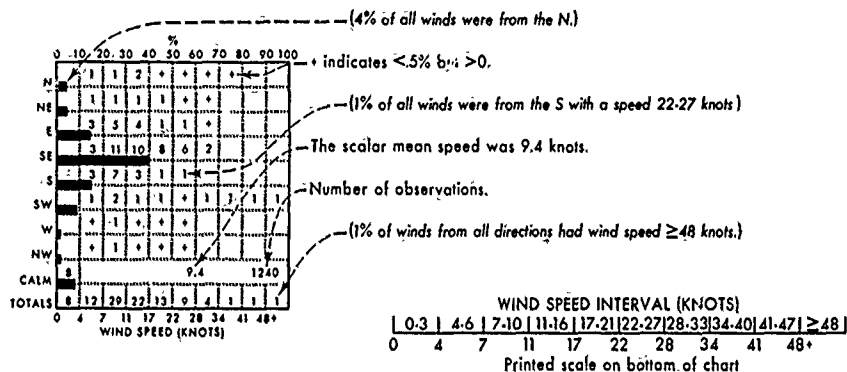


SURFACE WINDS



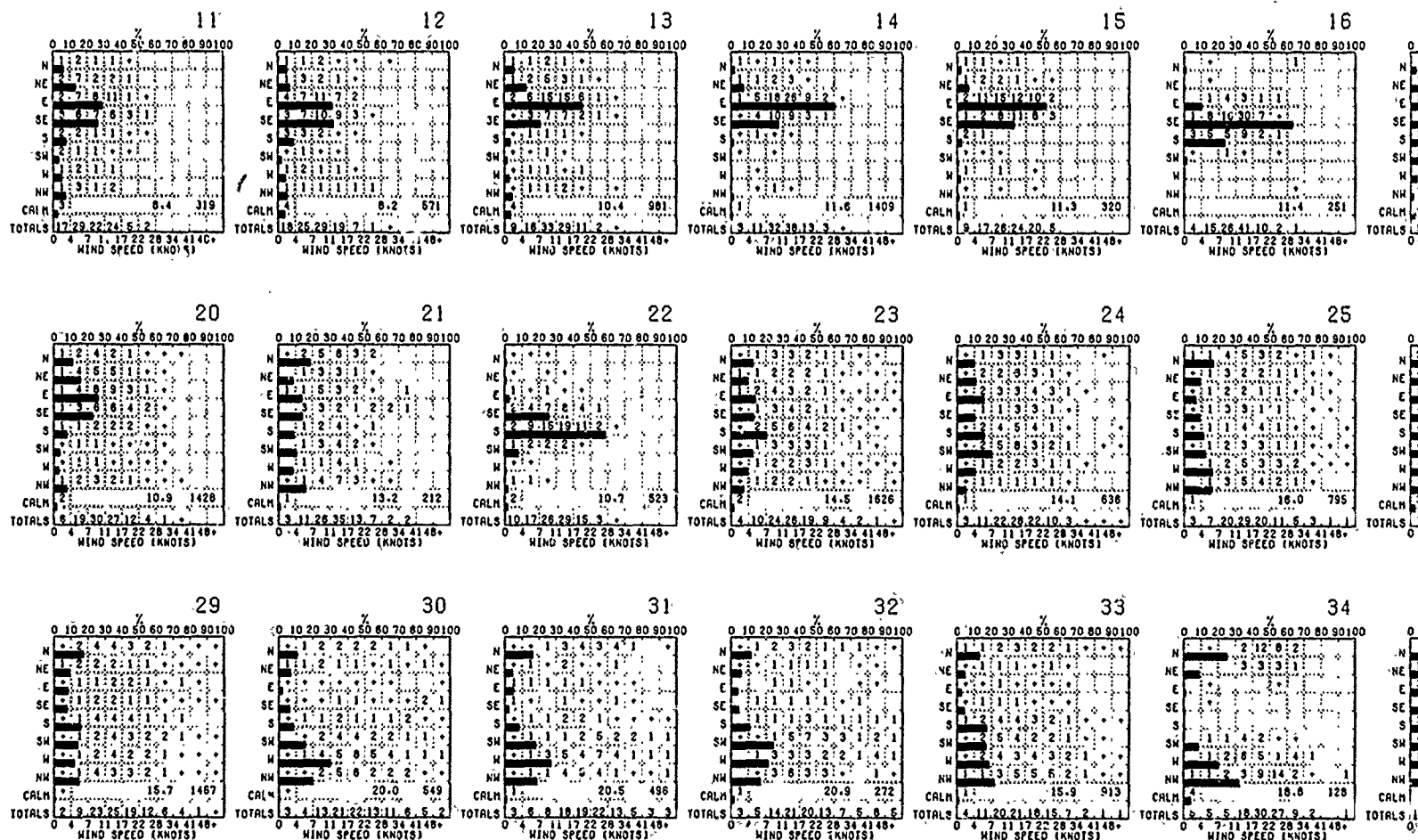
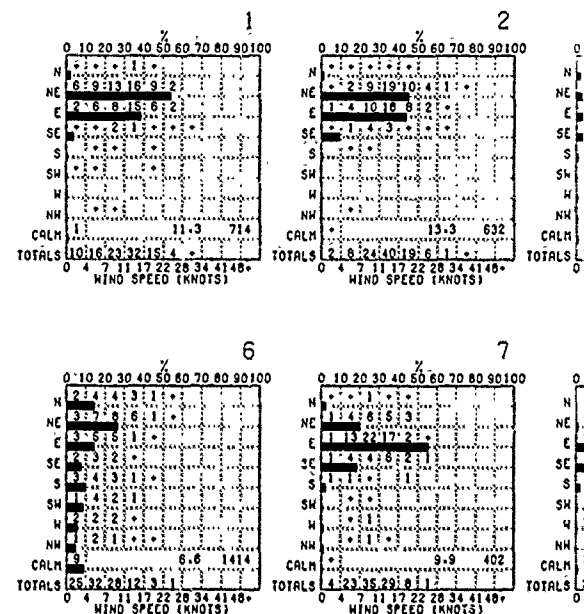
WIND DIRECTION AND SPEED

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

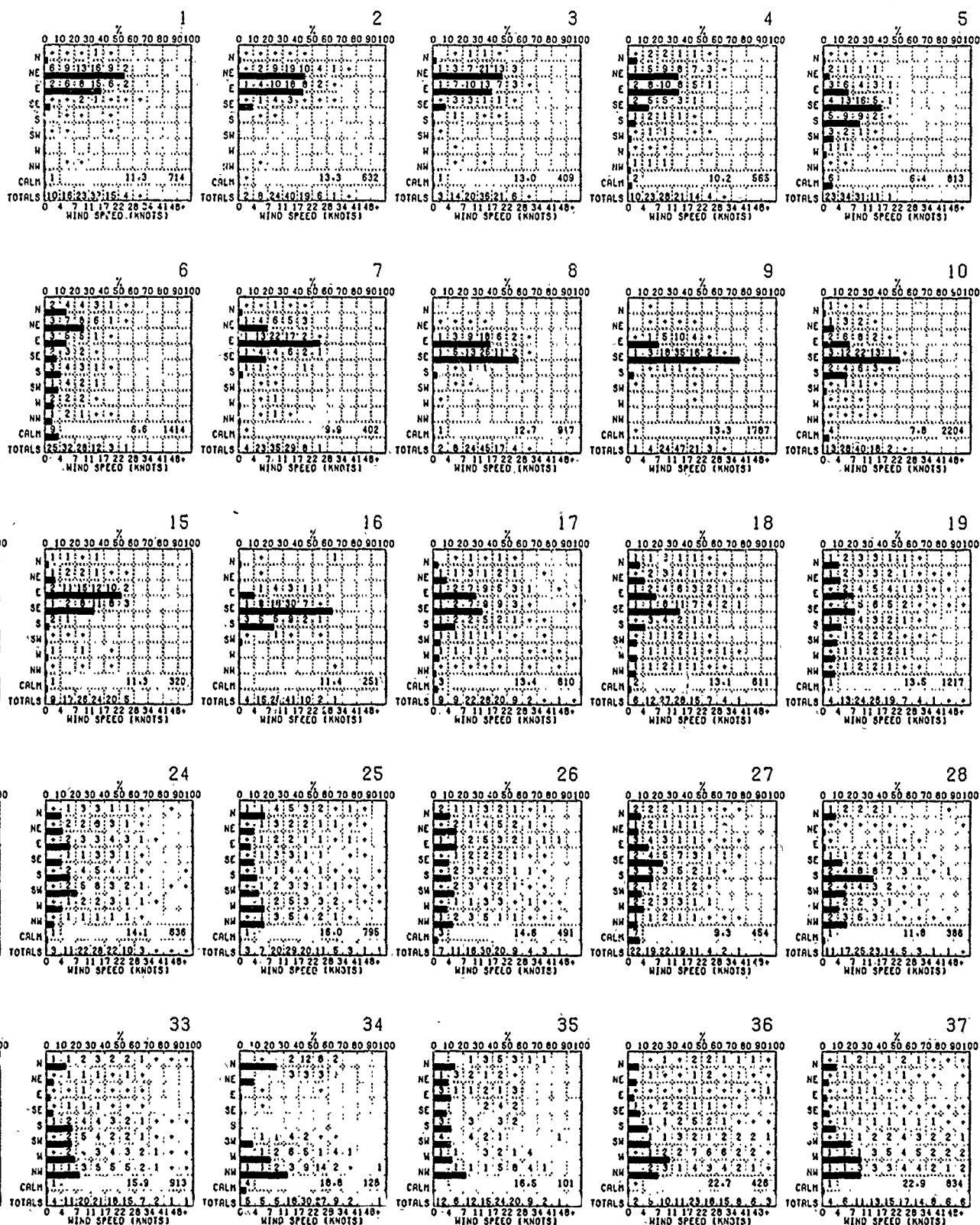


Graphs represent the objective compilation of available data for specified areas without regard to sus. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bia.

SPEED

APRIL

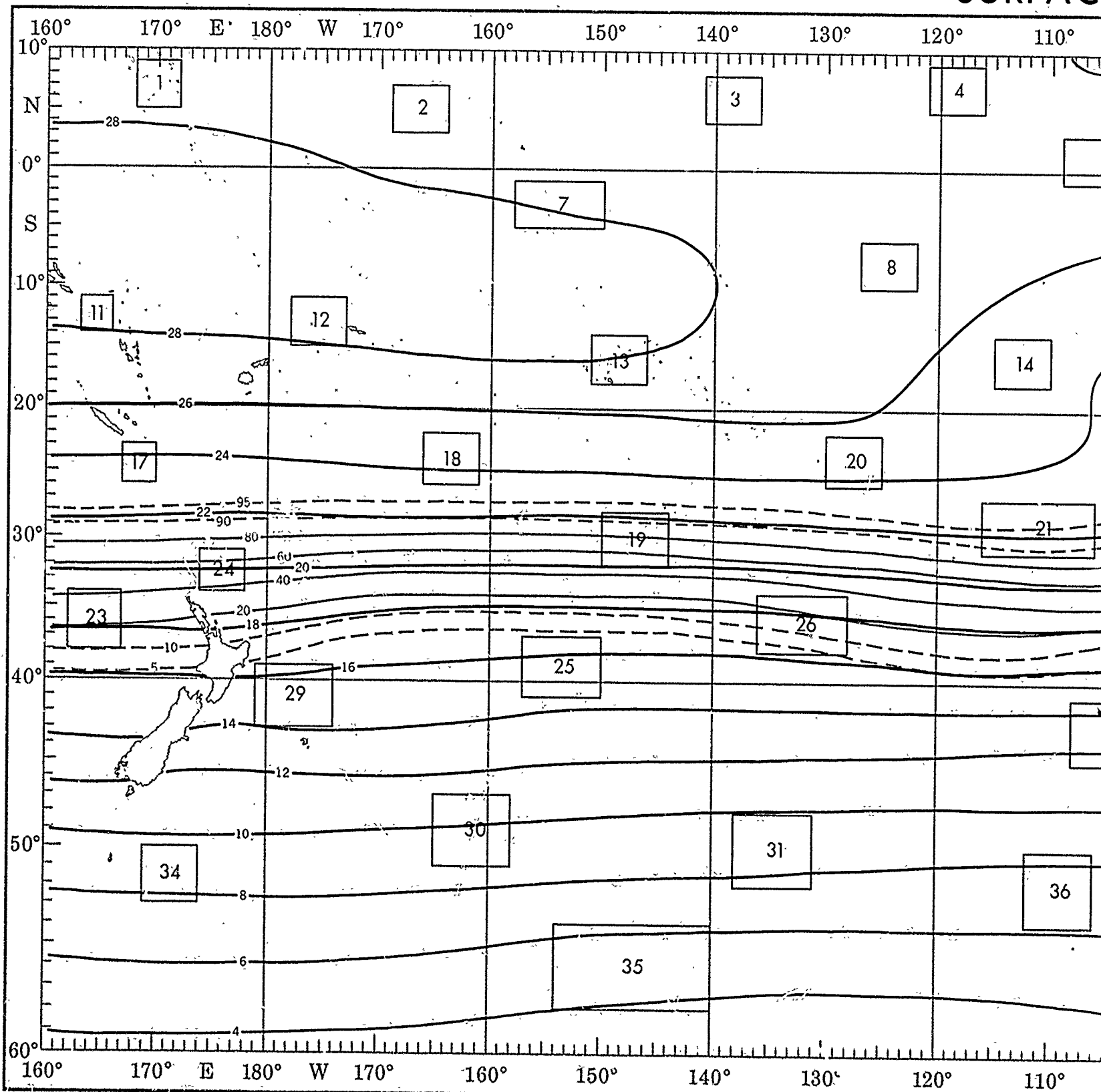
Speed frequency



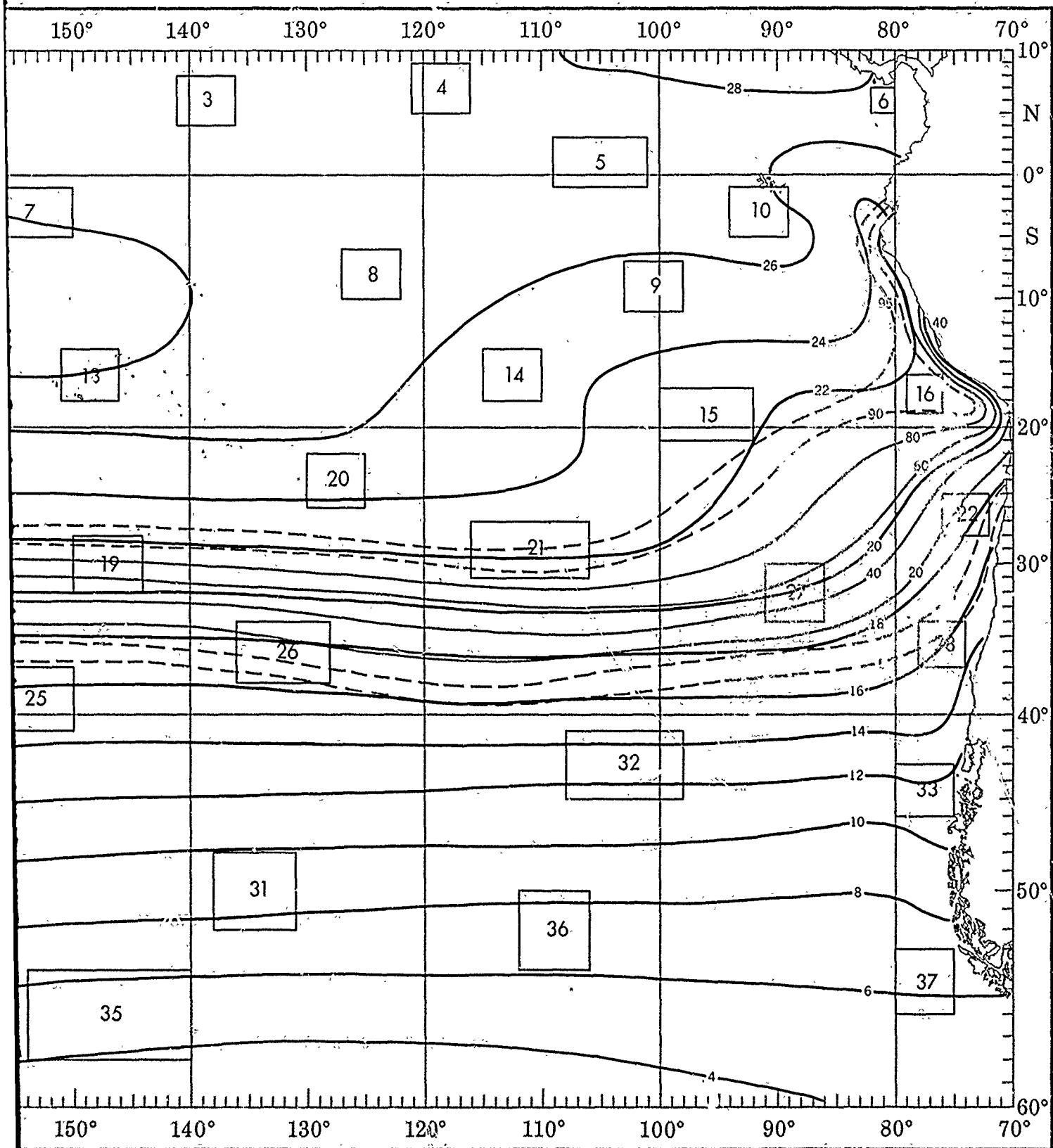
Active compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

APRIL

SURFAC



SURFACE AIR TEMPERATURE

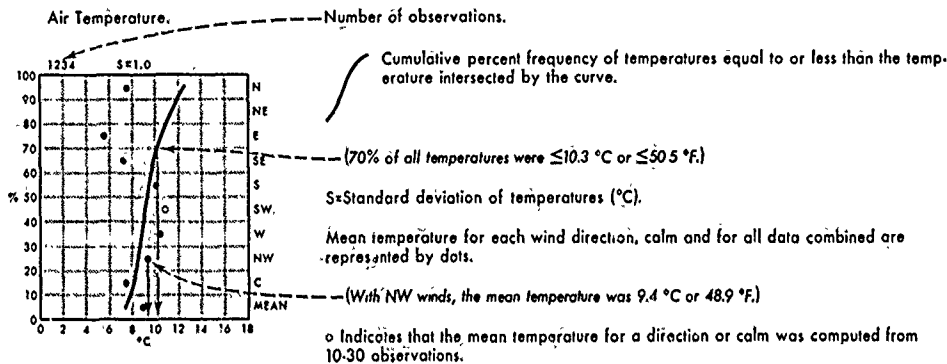


1

1

2

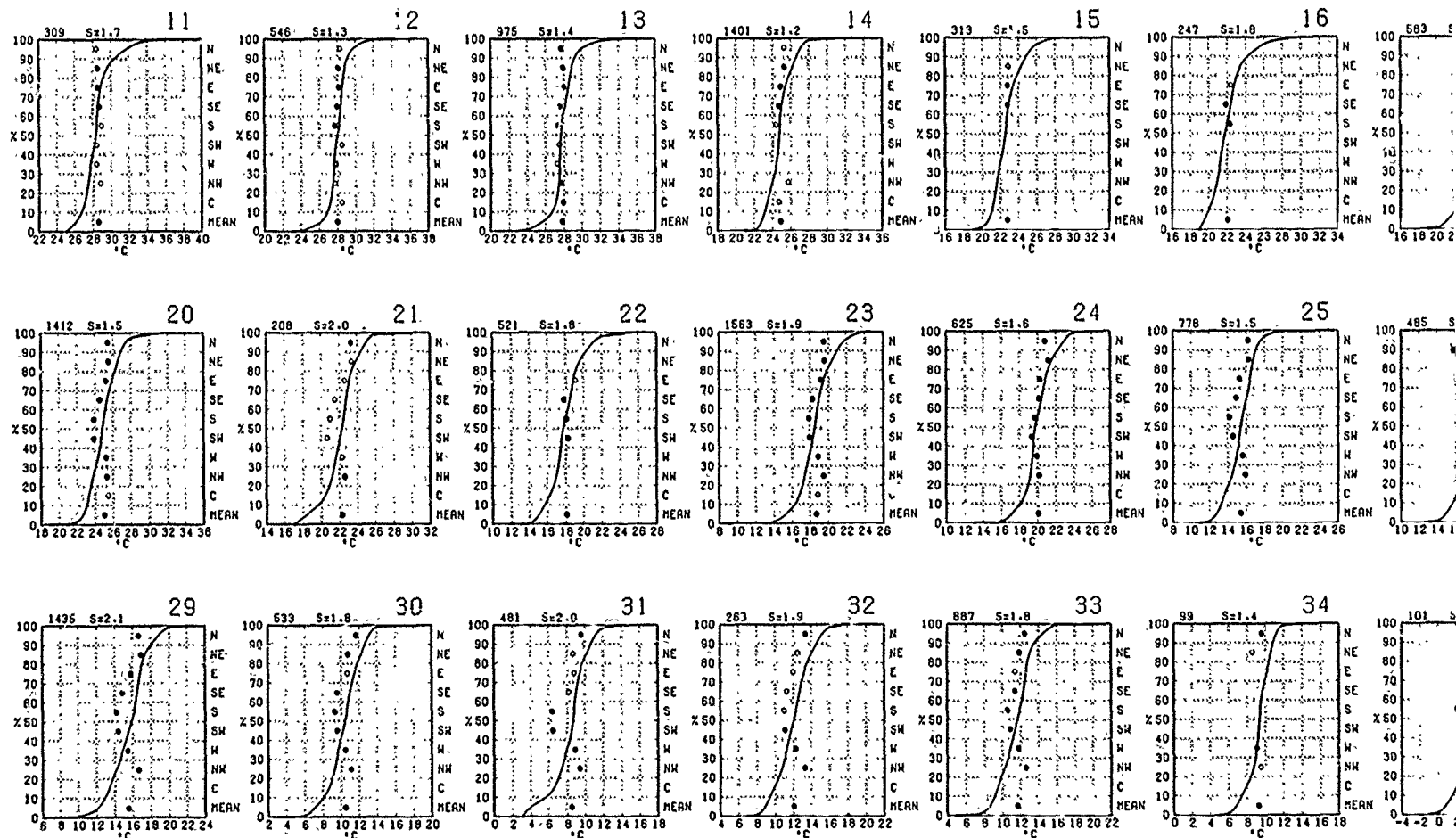
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^{\circ}\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^{\circ}\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to suspected bias. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias was suspected.

ATURE

APRIL

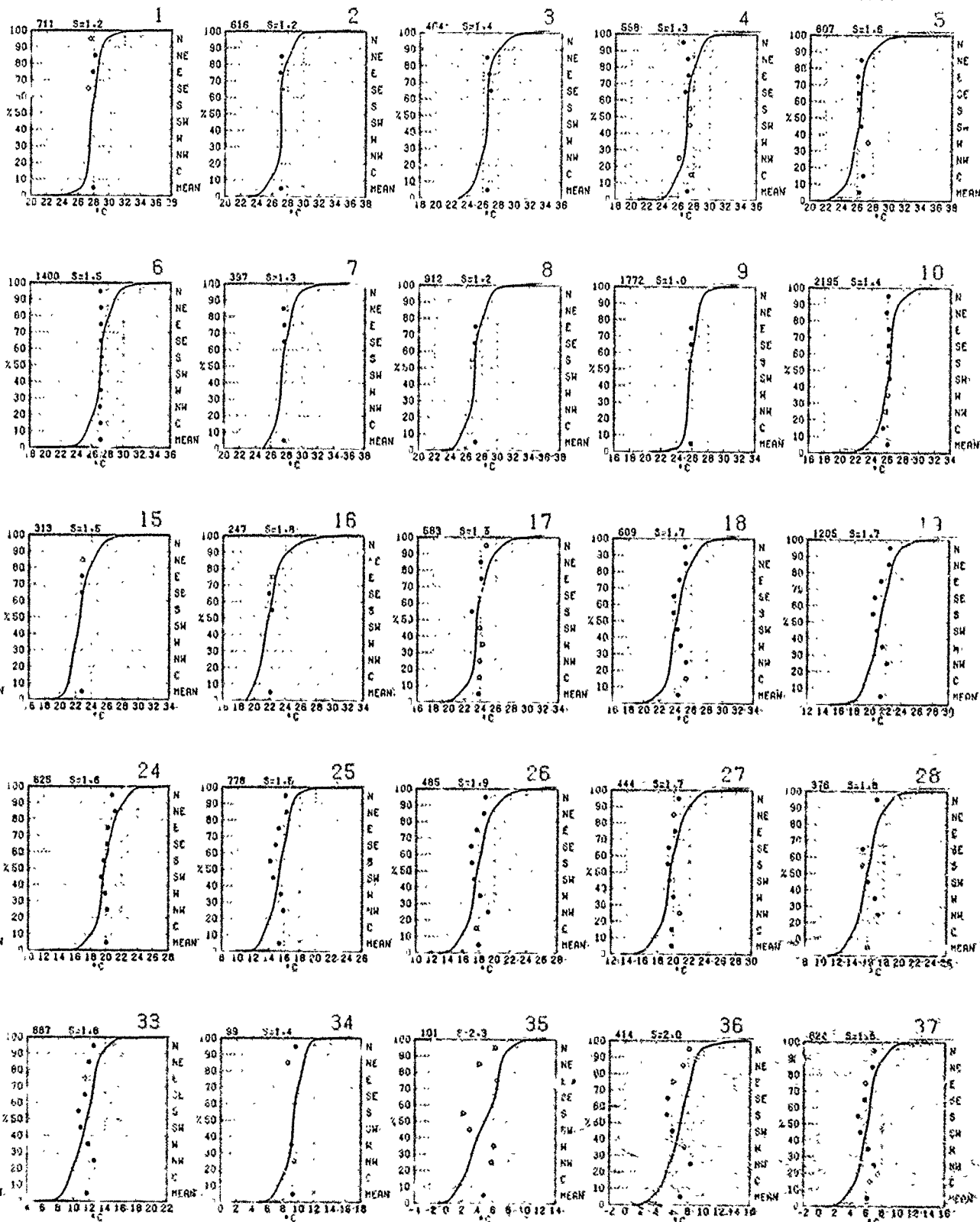
equal to or less than the temp

or all data combined are

9 °F.)

or calm was computed from

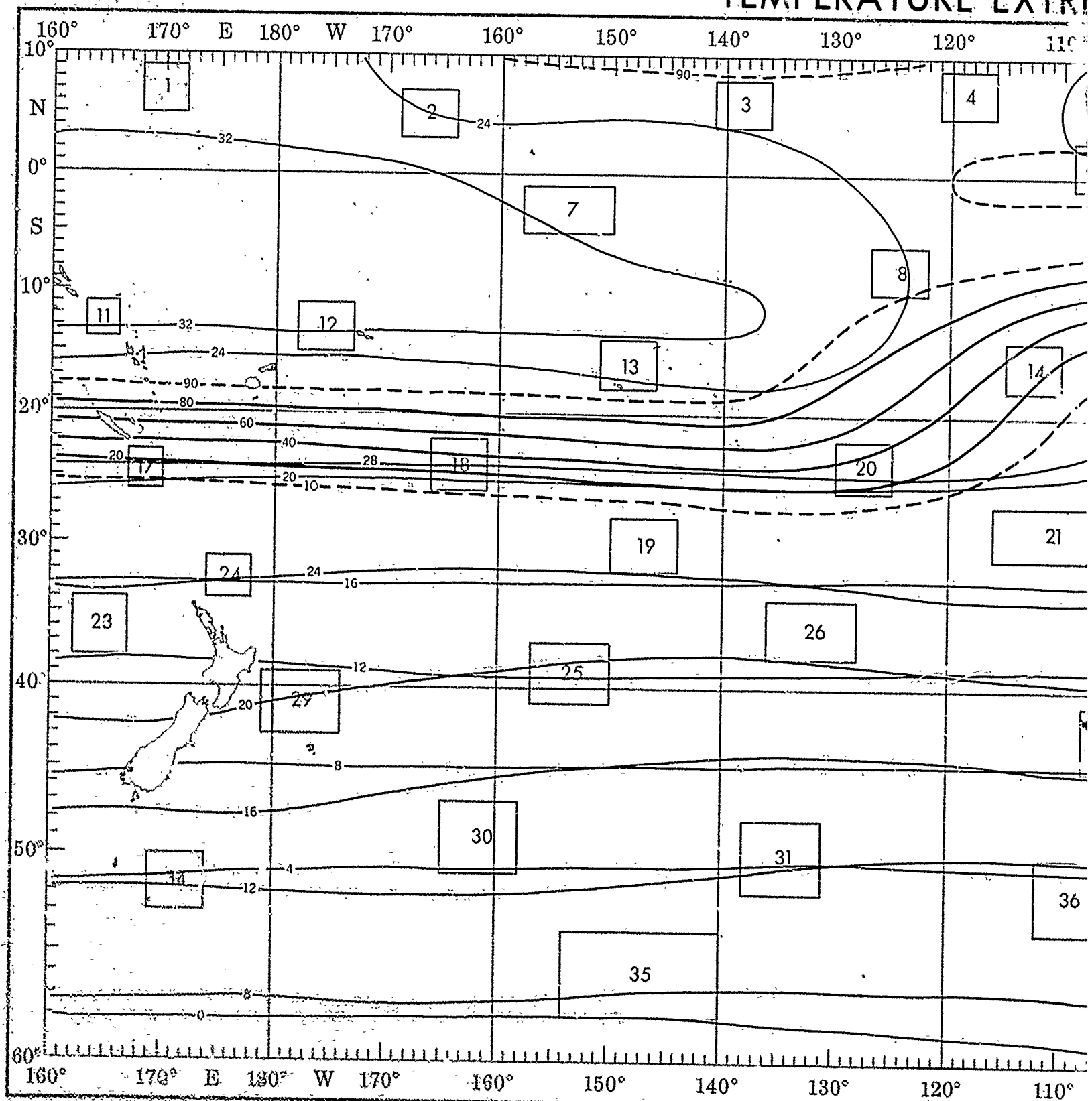
available.



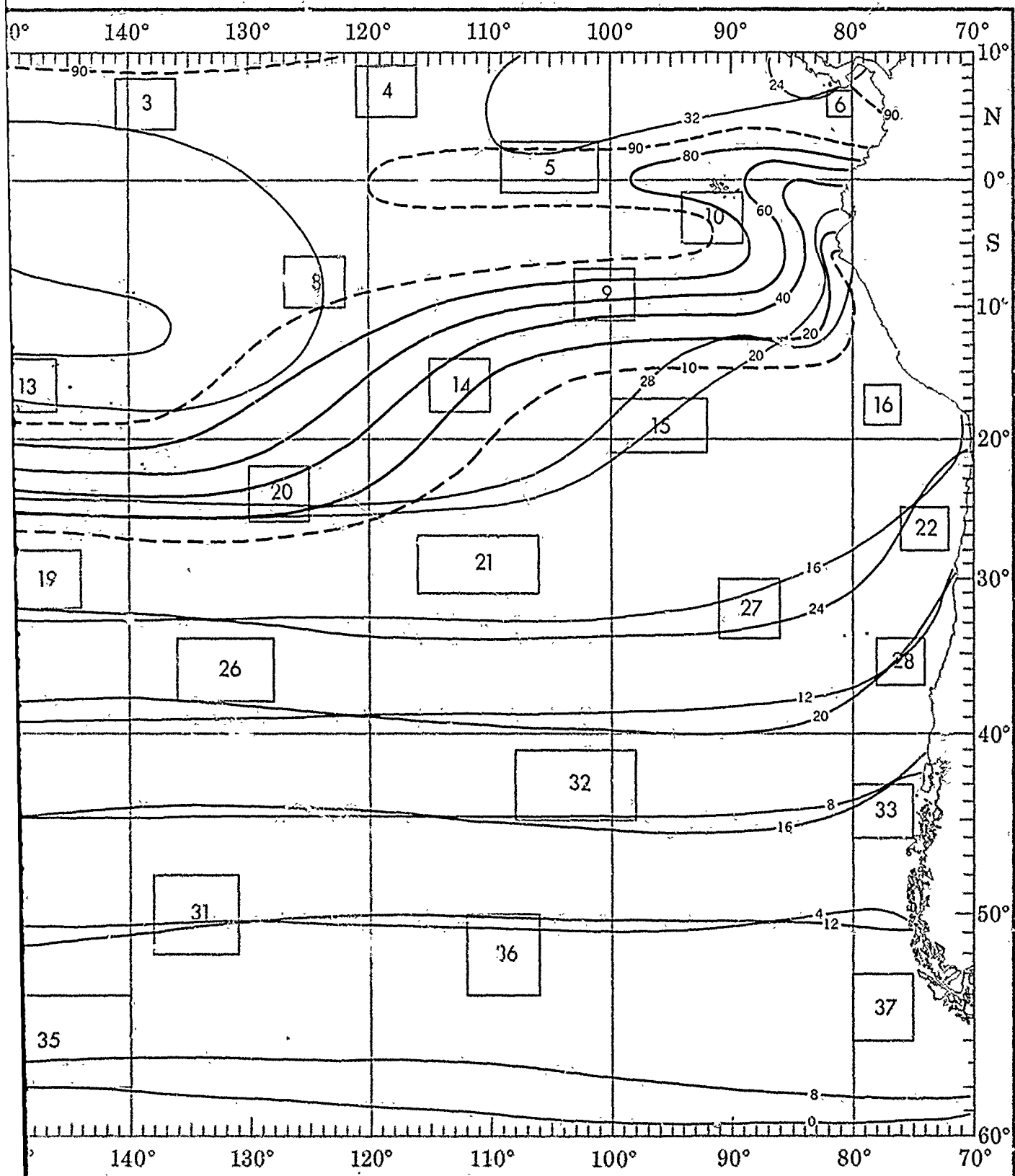
the objective compilation of available data for specified areas without regard to suspected biases. These (opposite page) are based on all available data subjectively adjusted where bias was evident

APRIL

TEMPERATURE EXTRA



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature.

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

WIND SPEED (KTS)	0-3	4-10	11-21	22-33	34
32.33	1	0	0	0	0
30.31	1	0	0	0	0
28.29	1	0	0	0	0
26.27	1	0	0	0	0
24.25	1	0	0	0	0
22.23	1	0	0	0	0
20.21	1	0	0	0	0
18.19	1	0	0	0	0
16.17	1	0	0	0	0
14.15	1	0	0	0	0
12.13	1	0	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates <.5% but >0.

Number of observations.

Use of this table in determination of Potential Superstructure Icing is explained in the text.

1						2					
WIND SPEED (KTS)						WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	1	+	0	0	32.33	0	+	0	0	0
30.31	1	3	2	0	0	30.31	0	1	1	+	0
28.29	7	24	30	2	0	28.29	0	10	21	3	0
26.27	2	11	14	2	0	26.27	2	19	35	3	0
24.25	+	+	+	+	0	24.25	+	2	3	1	0
22.23	0	0	+	0	0	22.23	0	+	+	+	0
20.21	0	0	0	0	0	20.21	0	0	0	0	0
18.19	0	0	0	0	0	18.19	0	0	0	0	0
16.17	0	0	0	0	0	16.17	0	0	0	0	0
14.15	0	0	0	0	0	14.15	0	0	0	0	0
12.13	0	0	0	0	0	12.13	0	0	0	0	0

711

618

6

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
34.35	0	+	0	0	0
32.33	+	1	+	0	0
30.31	1	3	+	0	0
28.29	8	16	4	+	0
26.27	16	32	7	+	0
24.25	2	5	2	0	0
22.23	+	+	+	+	0
20.21	0	+	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

1408

7

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
34.35	0	+	0	0	0
32.33	+	1	1	0	0
30.31	1	3	2	+	0
28.29	3	27	16	+	0
26.27	1	25	16	+	0
24.25	0	2	1	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

307

1498

397

BLACK LINE - Percent frequency of T-H index $\geq 24^{\circ}\text{C}$ (75.2°F) (discomfort may be experienced due to heat).

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11						WIND SPEED (KTS) 12						WIND SPEED (KTS) 13						WIND SPEED (KTS) 14						WIND SPEED (KTS) 15						WIND SPEED (KTS) 16						
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
34.35	+	+	1	0	0	32.33	1	1	0	0	0	34.35	0	+	0	0	0	32.33	+	0	0	0	0	28.29	0	+	0	0	0	28.29	0	+	0	0	0	
32.33	3	2	+	0	0	30.31	1	5	2	0	0	32.33	+	2	1	0	0	30.31	0	+	+	0	0	26.27	1	4	2	0	0	26.27	+	2	2	+	0	
30.31	3	9	2	0	0	28.29	11	35	16	1	0	30.31	1	4	2	+	0	28.29	0	1	1	+	0	24.25	2	7	11	1	0	24.25	1	6	6	0	0	
28.29	7	27	20	2	0	26.27	5	13	8	1	0	28.29	5	25	21	1	0	26.27	1	12	14	1	0	22.23	5	23	23	2	0	22.23	2	16	20	1	0	
26.27	5	11	8	0	0	24.25	0	1	1	0	0	26.27	4	17	14	1	0	24.25	2	26	31	2	0	20.21	+	9	8	1	0	20.21	1	15	20	2	0	
24.25	0	1	1	0	0	22.23	0	+	+	0	0	24.25	+	1	1	+	0	22.23	+	4	4	+	0	18.19	0	0	0	0	0	18.19	0	1	3	0	0	
22.23	0	0	0	0	0	20.21	0	0	0	0	0	22.23	0	+	+	+	0	20.21	0	+	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	
20.21	0	0	0	0	0	18.19	0	0	0	0	0	20.21	0	0	0	0	0	18.19	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	
18.19	0	0	0	0	0	16.17	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	
310						556						994						1409						313						247						
WIND SPEED (KTS) 20						WIND SPEED (KTS) 21						WIND SPEED (KTS) 22						WIND SPEED (KTS) 23						WIND SPEED (KTS) 24						WIND SPEED (KTS) 25						
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
32.33	+	+	0	0	0	28.29	0	0	+	0	0	24.25	+	1	0	0	0	24.25	0	0	1	0	0	26.27	+	0	0	0	0	0	24.25	0	0	+	0	0
30.31	+	+	0	0	0	26.27	0	+	+	0	0	22.23	+	2	1	+	0	22.23	+	2	3	1	0	24.25	0	0	1	0	0	22.23	0	0	+	0	0	
28.29	2	1	+	0	0	24.25	1	11	17	3	0	20.21	3	8	7	+	0	20.21	1	9	11	3	+	27.23	1	6	10	1	+	20.21	0	+	+	0	0	
26.27	3	17	13	+	0	22.23	2	17	14	1	+	18.19	4	16	20	2	0	18.19	2	16	20	5	2	20.21	+	13	22	8	+	16.19	+	2	3	1	+	
24.25	3	23	18	2	+	20.21	0	7	11	4	1	16.17	2	13	16	1	0	16.17	1	6	9	3	+	18.19	1	11	14	4	0	16.17	1	12	22	8	2	
22.23	+	6	7	1	0	18.19	+	3	2	+	+	14.15	1	2	2	0	0	14.15	+	1	2	1	+	16.17	+	2	3	+	0	14.15	1	11	18	6	2	
20.21	+	+	+	+	0	16.17	0	1	1	0	0	12.13	0	+	+	0	0	12.13	0	+	+	+	0	14.15	+	+	+	+	0	12.13	+	2	4	2	1	
18.19	0	+	0	0	0	14.15	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	+	+	12.13	0	+	0	0	0	10.11	0	+	+	+	+	
16.17	0	0	0	0	0	12.13	0	9	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	
14.15	0	0	0	0	0	10.11	0	0	0	0	0	6.7	0	0	0	0	0	6.7	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	
12.13	0	0	0	0	0	8.9	0	0	0	0	0	4.5	0	0	0	0	0	4.5	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	
1443						211						522						1572						627						782						
WIND SPEED (KTS) 29						WIND SPEED (KTS) 30						WIND SPEED (KTS) 31						WIND SPEED (KTS) 32						WIND SPEED (KTS) 33						WIND SPEED (KTS) 34						
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	
22.23	+	+	+	0	0	16.17	0	0	0	0	0	14.15	0	+	+	0	0	16.17	0	1	3	1	+	20.21	0	0	+	0	0	12.13	0	1	6	2	0	
20.21	+	+	1	+	+	14.15	0	+	+	1	+	12.13	0	1	1	+	1	16.17	+	3	9	4	2	18.19	0	+	0	0	0	10.11	1	2	15	15	0	
18.19	+	4	6	2	1	12.13	1	4	17	8	2	10.11	1	3	9	11	2	12.13	1	11	15	5	5	16.17	+	1	+	+	0	8.9	0	6	24	17	0	
16.17	1	15	18	8	1	10.11	1	10	14	7	5	8.9	2	7	20	13	2	10.11	1	3	13	6	6	14.15	1	4	5	3	1	6.7	+	0	8	1	0	
14.15	1	7	11	5	2	8.9	+	3	8	5	3	6.7	1	2	5	5	3	8.9	0	2	3	2	4	12.13	1	11	17	10	2	4.5	0	1	0	0	0	
12.13	+	3	7	3	1	6.7	0	1	3	2	+	4.5	+	1	1	2	2	6.7	0	0	0	+	0	10.11	2	12	13	7	1	2.3	0	0	0	0	0	
10.11	+	+	+	1	+	4.5	0	0	0	+	0	2.3	+	1	+	1	+	4.5	0	0	0	0	0	8.9	1	3	3	2	+	0.1	0	0	0	0	0	
8.9	0	+	0	+	0	2.3	0	0	0	+	0	0.1	0	0	0	0	0	2.3	0	0	0	0	0	6.7	+	+	0	+	0	-2.1	0	0	0	0	0	
6.7	0	+	0	0	0	0.1	0	0	0	0	0	-2.1	0	0	0	0	0	0.1	0	0	0	0	0	4.5	0	0	0	0	0	-4.5	0	0	0	0	0	
4.5	0	0	0	0	0	-2.1	0	+	0	0	0	-4.5	0	0	0	0	0	-2.1	0	0	0	0	0	2.3	0	0	0	0	0	-6.5	0	0	0	0	0	
2.3	0	0	0	0	0	-4.5	0	0	0	0	0	-6.5	0	0	0	0	0	-4.5	0	0	0	0	0	0.1	0	0	0	0	0	-8.7	0	0	0	0	0	
1447						537						487						263						887						99						

310

556

994

1409

313

247

WIND SPEED (KTS) 20													WIND SPEED (KTS) 21													WIND SPEED (KTS) 22													WIND SPEED (KTS) 23													WIND SPEED (KTS) 24													WIND SPEED (KTS) 25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°C)		0-3		4-10		11-21		22-33		34		TEMP (°	

1443

211

522

1572

627

782

29

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

22.23

+

+

+

0

0

20.21

+

+

1

+

+

18.19

+

4

6

2

1

16.17

1

15

18

8

1

14.15

1

7

11

5

2

12.13

+

3

7

3

1

10.11

+

+

+

1

+

8.9

0

+

0

+

0

6.7

0

+

0

0

0

4.5

0

0

0

0

0

2.3

0

0

0

0

0

1447

30

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

16.17

0

0

0

0

+

14.15

0

+

+

1

+

12.13

1

4

17

8

2

10.11

1

10

14

7

5

8.9

+

3

8

5

5

6.7

0

1

3

2

+

4.5

0

0

0

+

0

2.3

0

0

0

+

0

0.1

0

0

0

0

-2.1

0

0

0

0

0

-4.3

0

0

0

0

0

-6.5

0

0

0

0

0

537

31

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

14.15

0

+

+

0

0

12.13

0

1

1

+

1

10.11

1

3

9

11

2

8.9

2

7

20

14

2

6.7

1

2

5

5

3

4.5

+

1

1

2

2

2.3

+

1

+

1

+

0.1

0

0

0

0

0

-2.1

0

0

0

0

0

-4.3

0

0

0

0

0

-6.5

0

0

0

0

0

487

32

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

16.17

0

1

3

1

+

14.15

+

3

9

4

2

12.13

1

11

15

5

5

10.11

1

3

13

6

6

8.9

0

2

3

2

4

6.7

0

0

0

+

0

4.5

0

0

0

0

0

2.3

0

0

0

0

0

0.1

0

0

0

0

0

-2.1

0

0

0

0

0

-4.3

0

0

0

0

0

-6.5

0

0

0

0

0

263

33

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

20.21

0

0

+

0

0

18.19

0

+

0

0

0

16.17

+

1

+

+

0

14.15

1

4

5

3

1

12.13

1

11

17

10

2

10.11

2

12

13

7

1

8.9

1

3

3

2

+

6.7

+

+

0

+

4.5

0

0

0

0

0

2.3

0

0

0

0

0

0.1

0

0

0

0

0

-8.7

0

0

0

0

0

887

34

WIND SPEED (KTS)

TEMP (°C)

0-3

4-10

11-21

22-33

34

12.13

0

1

6

2

0

10.11

1

2

15

15

0

8.9

0

6

24

17

0

6.7

+

0

8

1

0

4.5

0

1

0

0

0

2.3

0

0

0

0

0

0.1

0

0

0

0

0

-2.1

0

0

0

0

0

-4.3

0

0

0

0

0

-6.5

0

0

0

0

0

-8.7

0

0

0

0

0

99

1447

537

487

263

887

99

Graphs represent the objective compilation of available data for specified areas without regard to su
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bi

TEMPERATURE

APRIL

and wind speed

of 22-33 kts.)

ed in the text.

heat)

(the given value)

ven value)

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	1	0	0	0
30.31	1	3	2	0	0
28.29	7	24	30	2	0
26.27	2	11	14	2	0
24.25	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

711

WIND SPEED (KTS) 2

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	0	0	0	0
30.31	0	1	1	0	0
28.29	0	10	21	3	0
26.27	2	19	35	3	0
24.25	0	2	3	1	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

618

WIND SPEED (KTS) 3

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	2	1	0	0
28.29	1	6	10	1	0
26.27	1	21	37	3	0
24.25	1	5	8	2	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

406

WIND SPEED (KTS) 4

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	0	0	0	0
30.31	1	2	1	0	0
28.29	3	17	12	2	0
26.27	5	29	20	2	0
24.25	1	4	2	1	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

560

WIND SPEED (KTS) 5

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	0	0	0	0
32.33	0	0	0	0	0
30.31	1	1	0	0	0
28.29	5	8	2	0	0
26.27	11	38	6	0	0
24.25	6	15	3	0	0
22.23	1	2	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

826

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	0	0	0	0
32.33	0	0	0	0	0
30.31	1	3	0	0	0
28.29	8	16	4	0	0
26.27	16	32	7	0	0
24.25	2	5	2	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

1498

WIND SPEED (KTS) 7

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	0	0	0	0
32.33	0	1	1	0	0
30.31	1	3	2	0	0
28.29	3	27	16	0	0
26.27	1	25	16	0	0
24.25	0	2	1	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

397

WIND SPEED (KTS) 8

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	0	0	0	0
30.31	0	1	2	0	0
28.29	1	11	16	1	0
26.27	1	19	42	3	0
24.25	0	1	2	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

914

WIND SPEED (KTS) 9

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	0	0	0	0
28.29	0	2	4	0	0
26.27	0	17	38	2	0
24.25	0	9	25	1	0
22.23	0	0	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1773

WIND SPEED (KTS) 10

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	1	0	0	0
28.29	2	9	2	0	0
26.27	7	40	14	0	0
24.25	4	15	3	0	0
22.23	1	1	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

2261

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	0	0	0	0
30.31	0	0	0	0	0
28.29	0	1	1	0	0
26.27	1	12	14	1	0
24.25	2	26	31	2	0
22.23	0	4	4	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1409

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	0	0	0	0
26.27	1	4	2	0	0
24.25	2	7	11	1	0
22.23	5	23	23	2	0
20.21	0	9	8	1	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

313

WIND SPEED (KTS) 16

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	0	1	0	0
26.27	0	2	2	0	0
24.25	1	6	6	0	0
22.23	2	16	20	1	0
20.21	1	15	20	2	0
18.19	0	1	3	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

247

WIND SPEED (KTS) 17

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	0	0	0	0
28.29	0	1	1	0	0
26.27	2	5	5	1	0
24.25	3	12	18	5	1
22.23	4	13	23	4	0
20.21	1	1	1	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

587

WIND SPEED (KTS) 18

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	1	0	0	0
28.29	1	2	1	0	0
26.27	2	9	9	1	0
24.25	3	16	18	5	0
22.23	1	10	13	5	1
20.21	0	1	2	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

617

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	0	0	1	0	0
22.23	0	2	3	1	0
20.21	1	9	11	3	0
18.19	2	16	20	5	2
16.17	1	6	9	3	0
14.15	0	1	2	1	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
5	0	0	0	0	0

1572

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
26.27	0	0	0	0	0
24.25	0	0	1	0	0
22.23	1	6	10	1	0
20.21	0	13	22	8	0
18.19	1	11	14	4	0
16.17	0	2	3	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

627

WIND SPEED (KTS) 25

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	2	3	1	0
16.17	1	12	22	8	2
14.15	1	11	18	6	2
12.13	0	2	4	2	1
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0

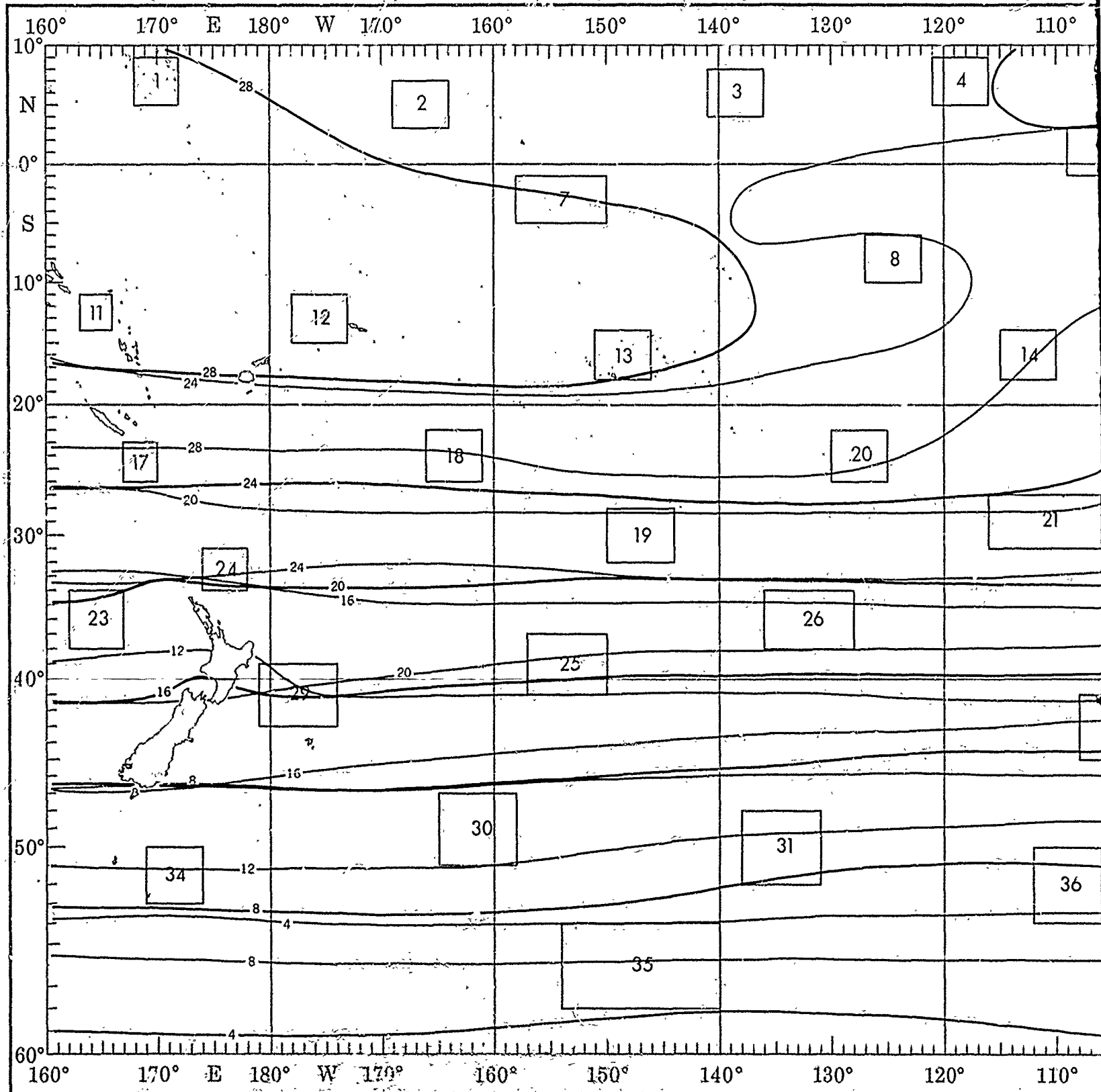
782

WIND SPEED (KTS) 26

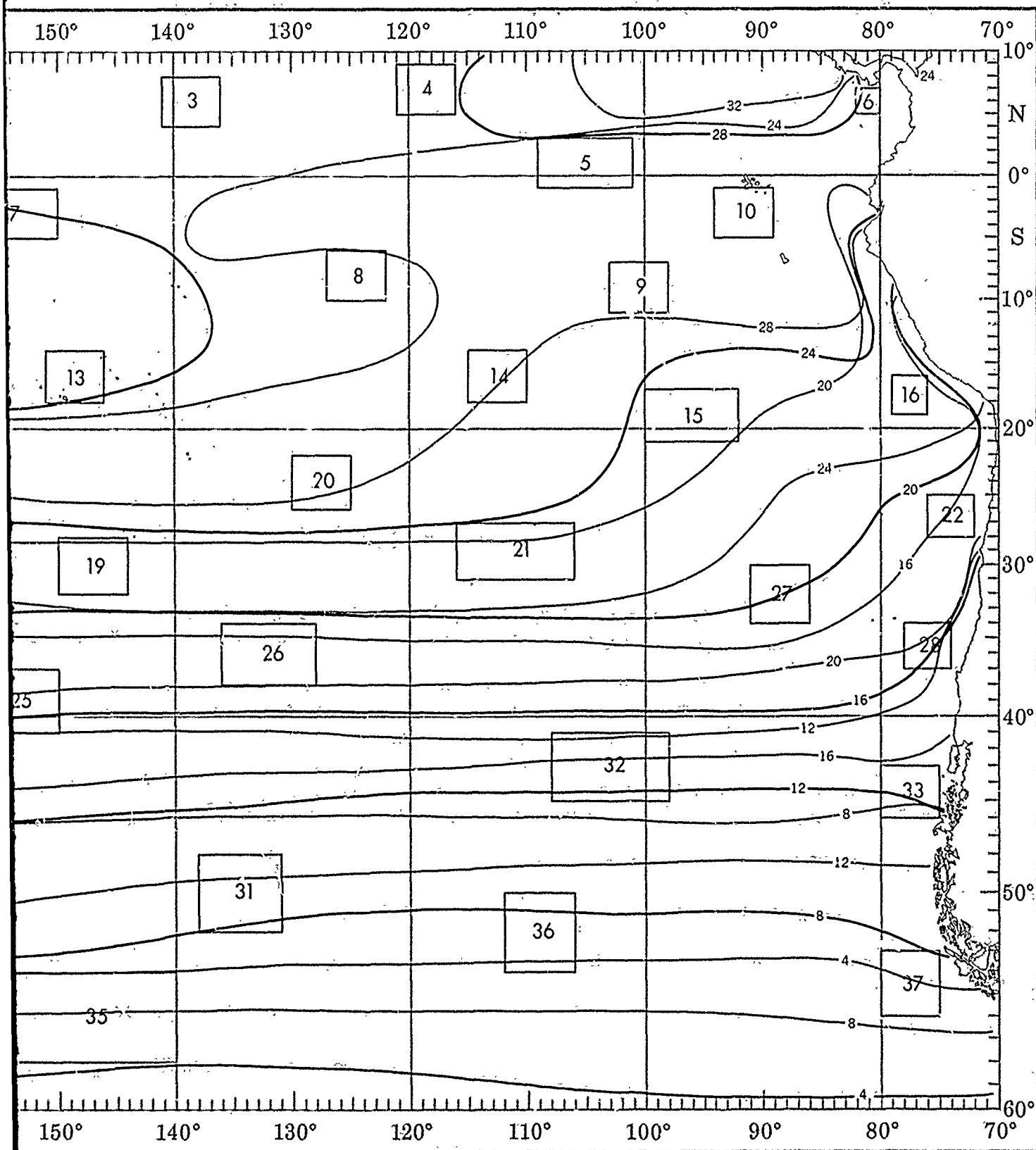
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
26.27	0	0	0	0	0
24.25	0	0	0	0	0
22.23	0	1	1	0	0
20.21	2	5	8	0	0
18.19	4	8	12	7	1

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SEA SUR

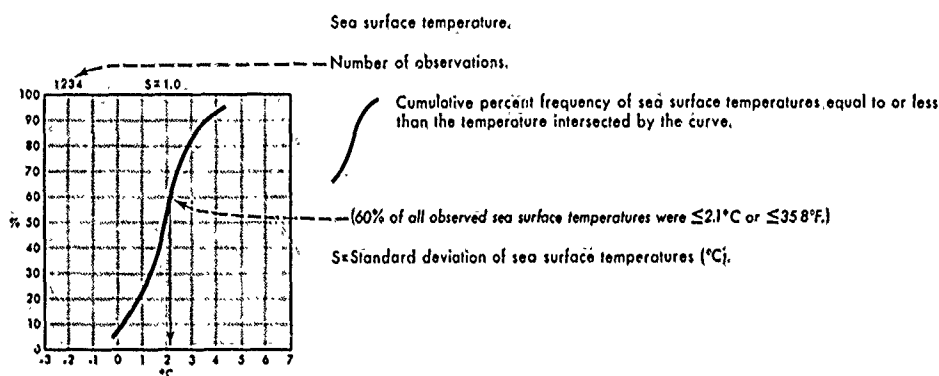


SEA SURFACE TEMPERATURE



1 1 2

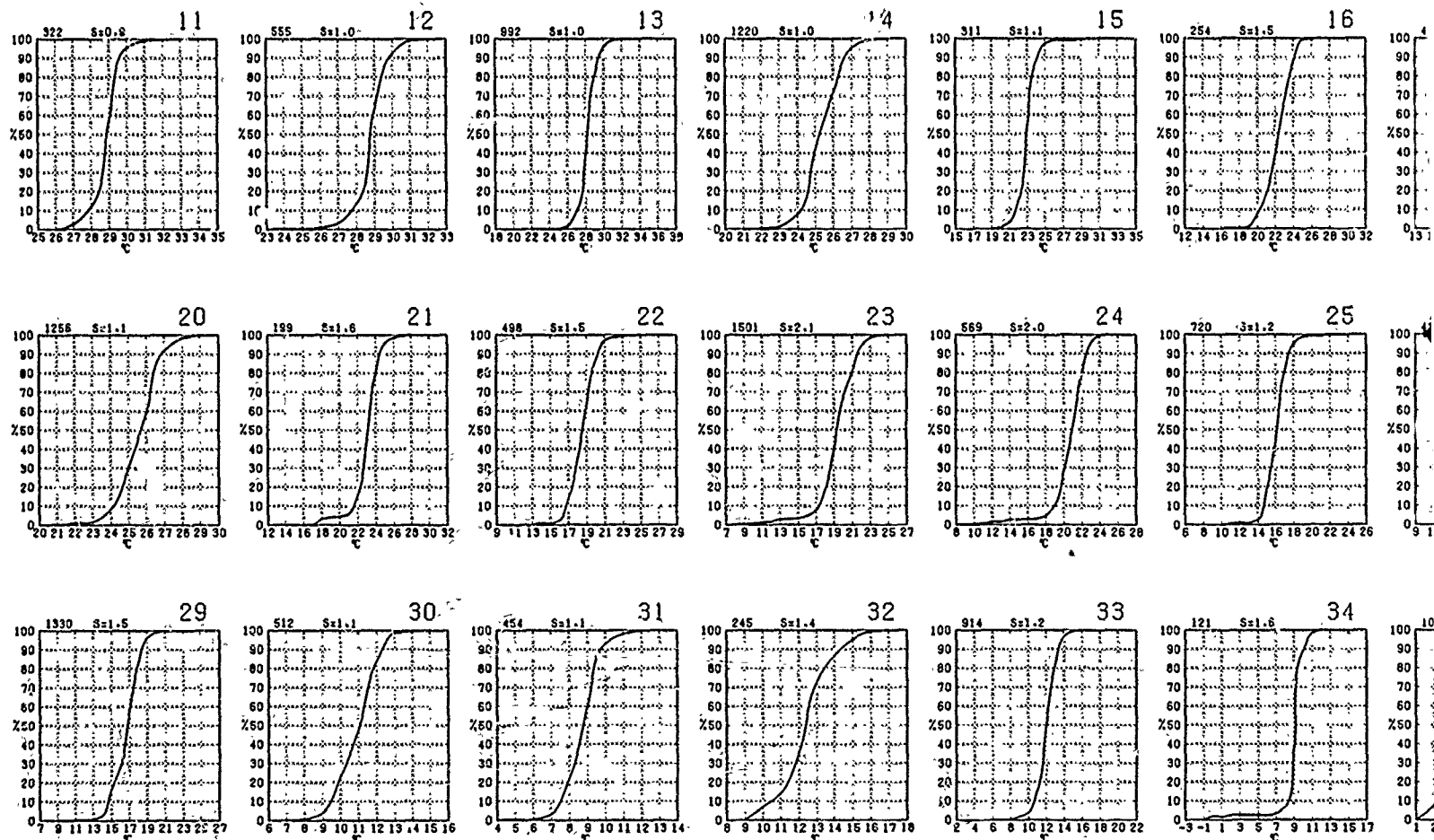
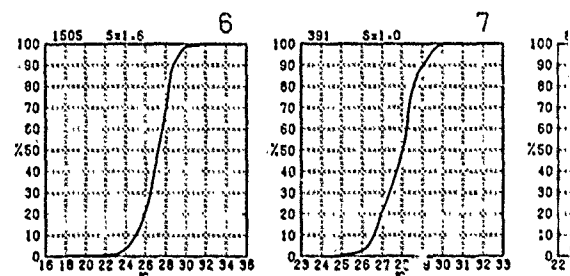
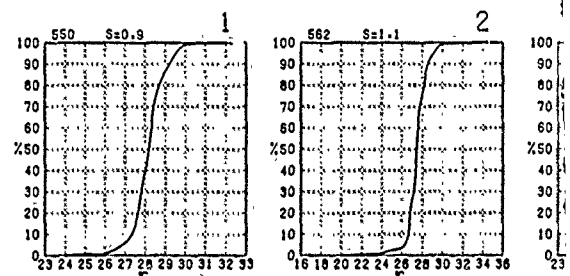
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^\circ\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^\circ\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^\circ\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to source. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

TURE

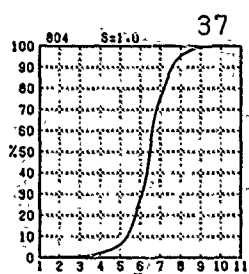
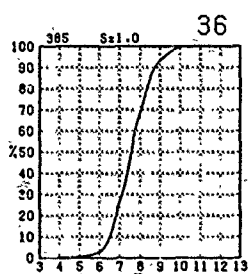
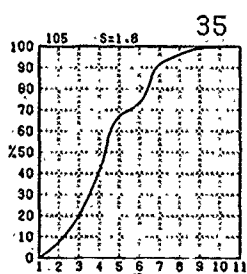
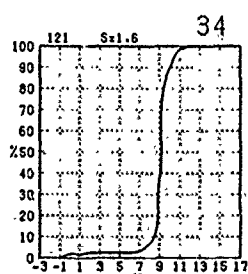
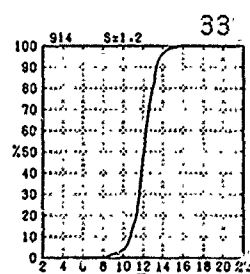
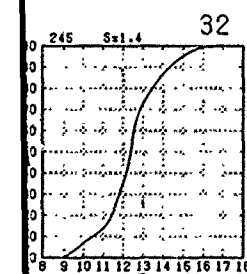
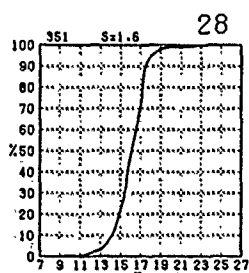
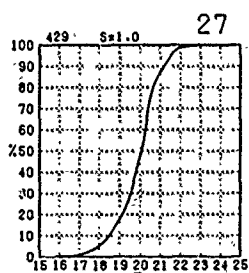
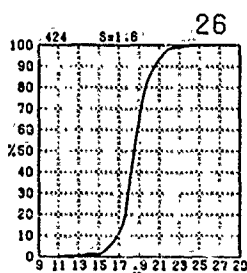
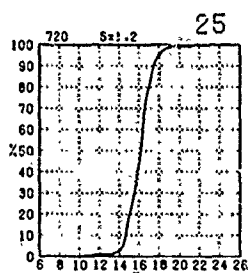
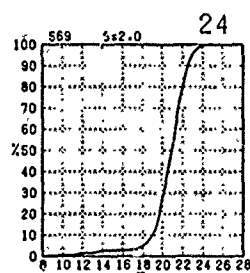
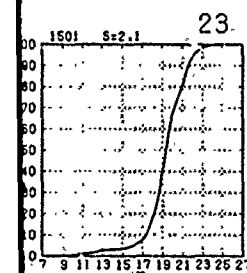
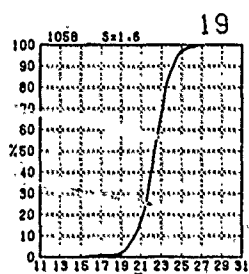
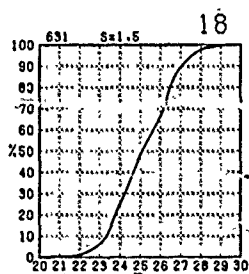
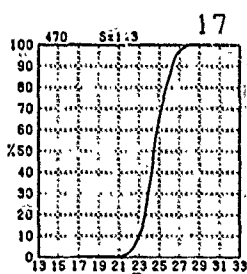
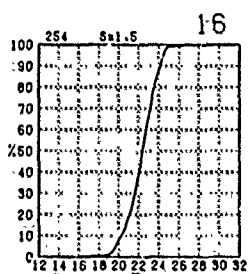
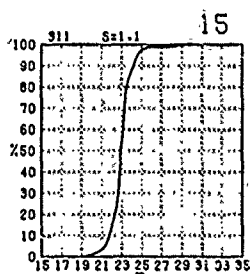
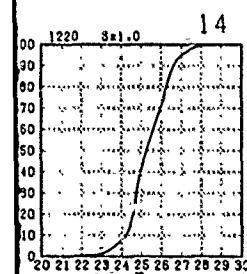
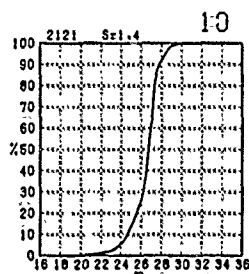
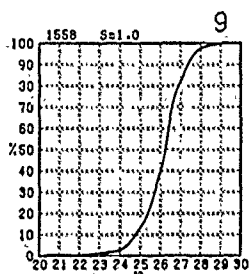
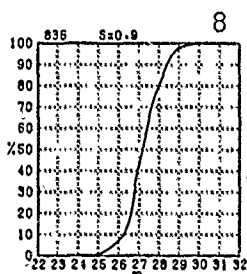
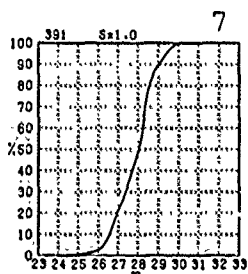
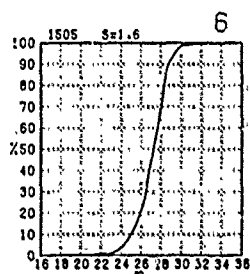
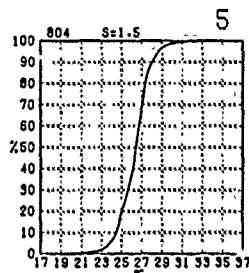
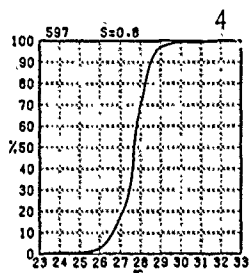
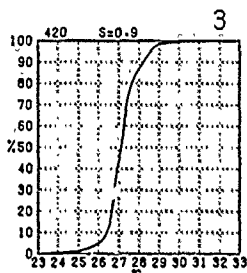
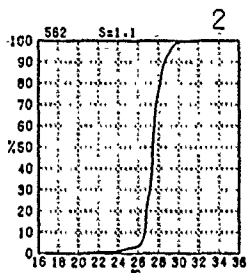
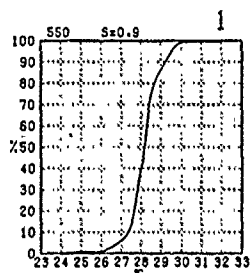
APRIL

atures equal to or less

35.8°F.)

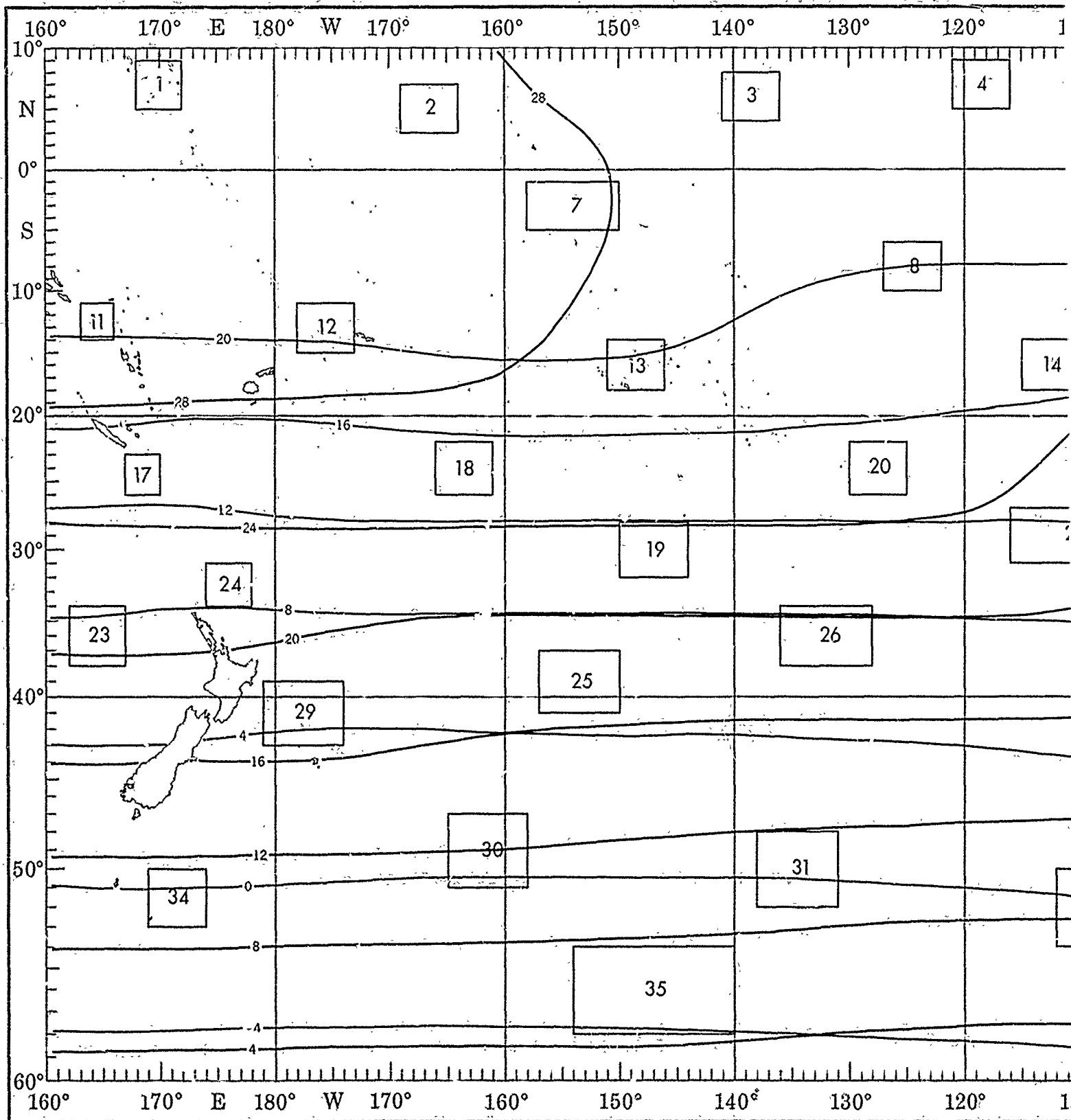
ss than the given

in the given value)

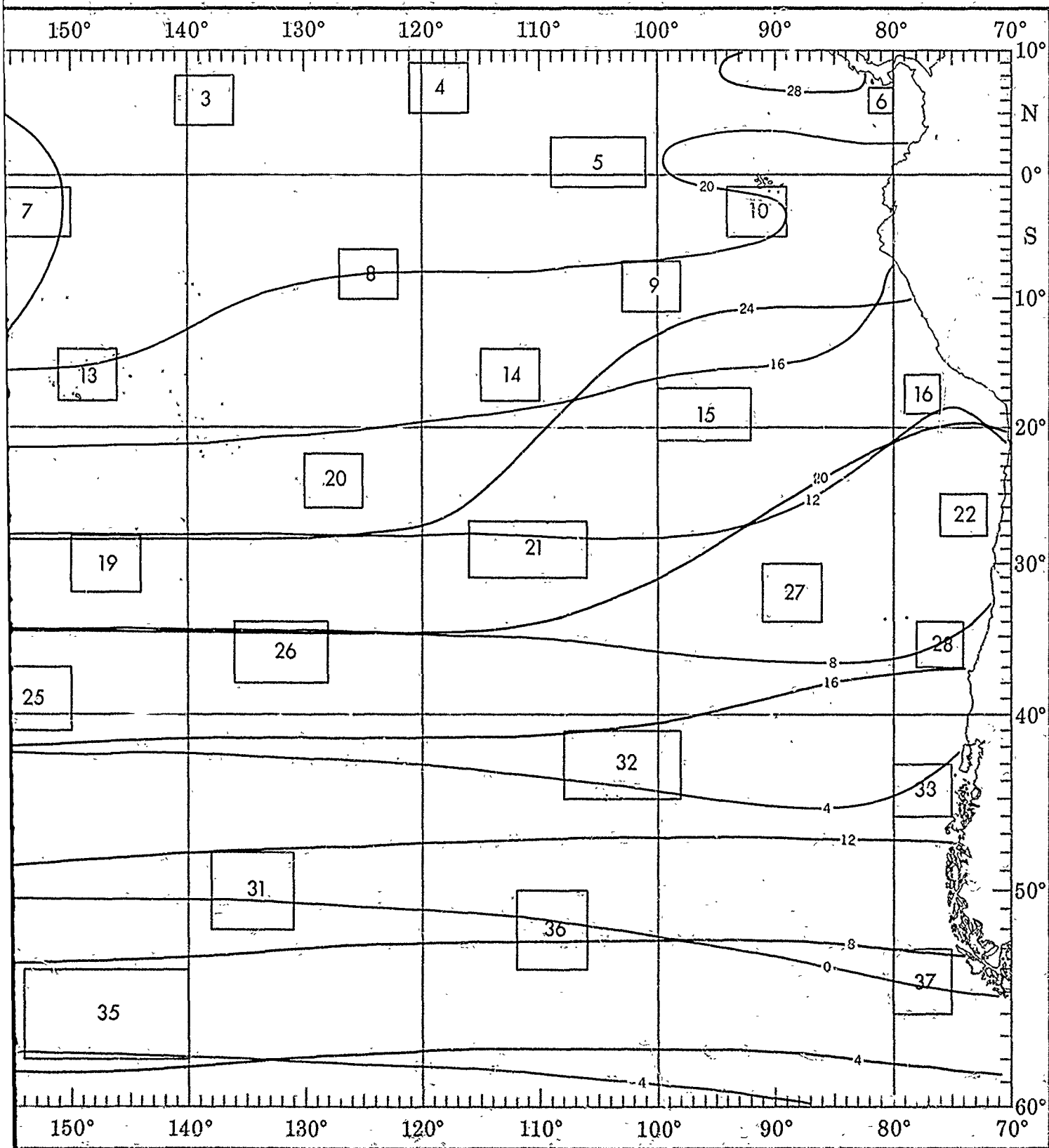


objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data; subjectively adjusted where bias was evident.

APRIL



HUMIDITY



WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity.

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).

Wet bulb (°C).

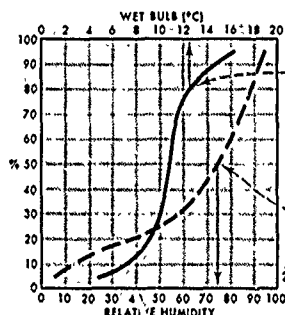
(80% of all observed wet-bulb temperatures were $\leq 12.5^{\circ}\text{C}$ or 54.5°F .)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale).

Relative humidity (%).

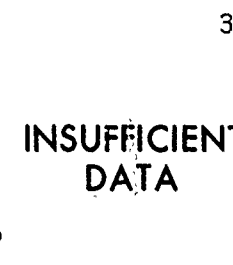
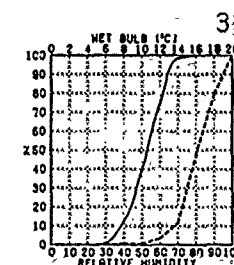
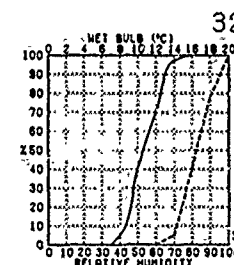
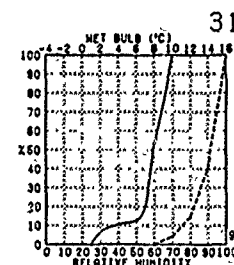
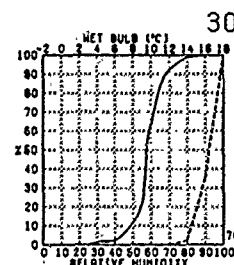
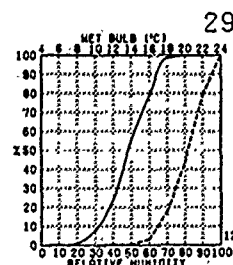
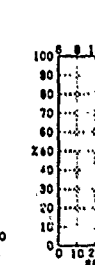
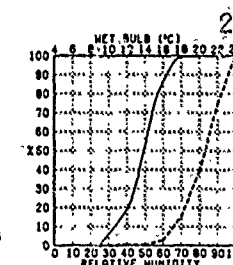
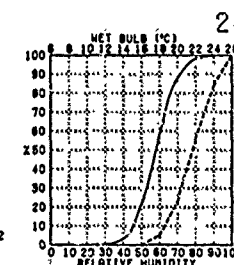
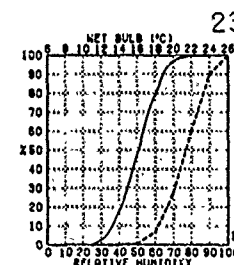
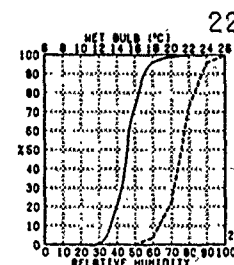
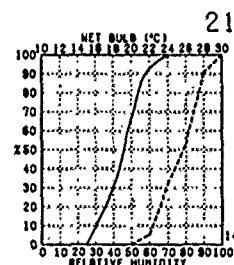
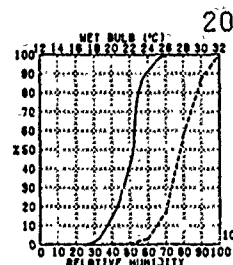
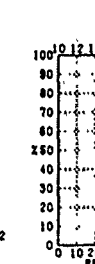
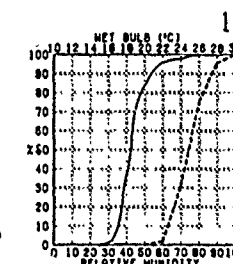
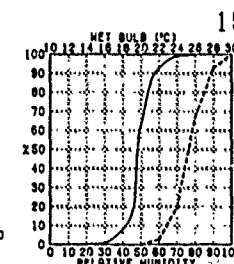
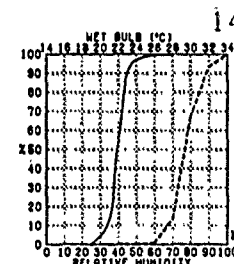
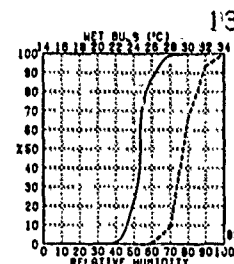
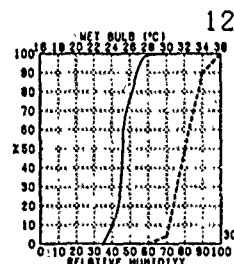
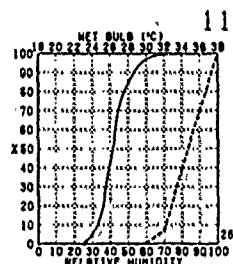
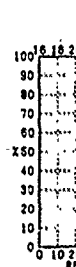
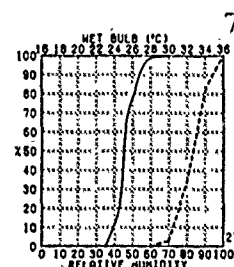
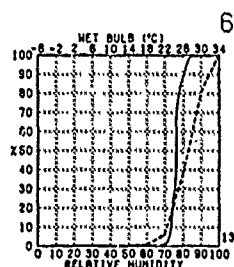
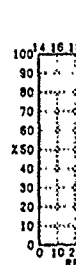
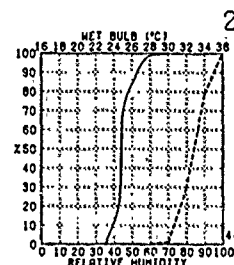
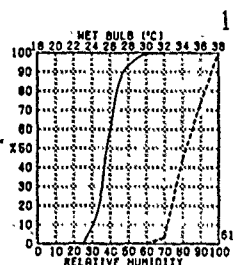
(50% of all observed relative humidities were $\leq 74\%$.)

Number of observations.



BLUE LINE - Minimum (1%) dew-point temperature (°C) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature (°C) (1% of the computed values were greater than the given value)



INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to suspected bias. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias is suspected.

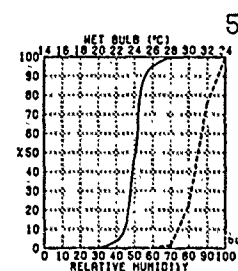
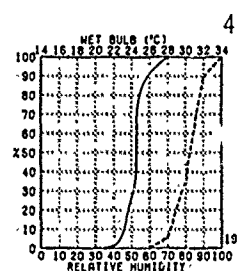
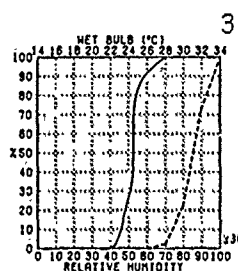
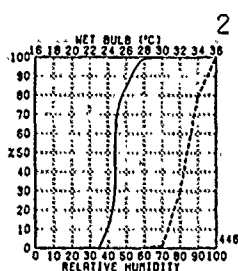
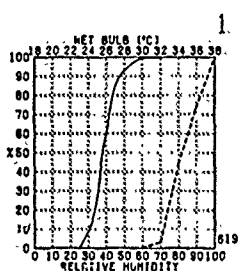
IVE HUMIDITY

APRIL

equal to or less than the

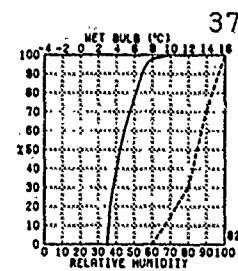
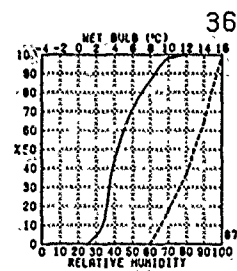
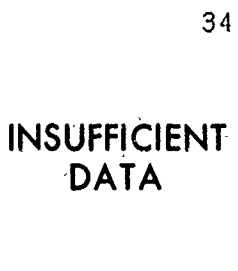
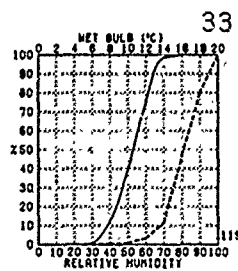
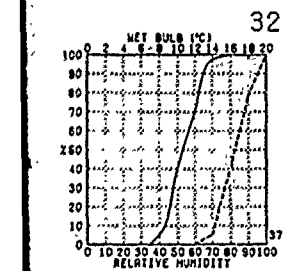
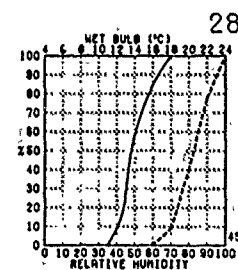
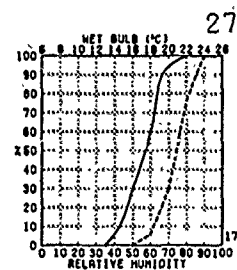
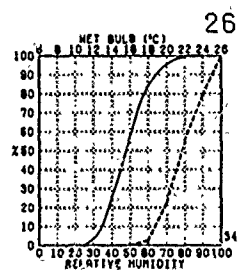
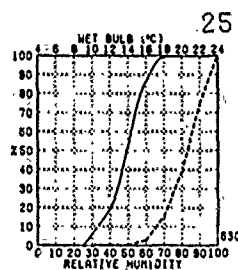
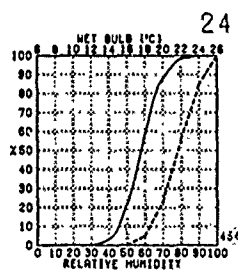
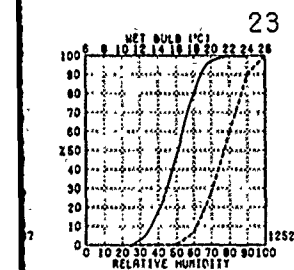
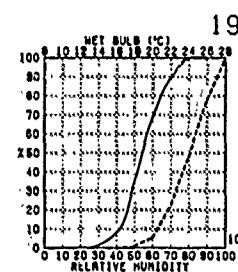
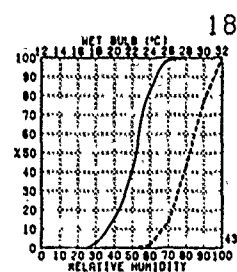
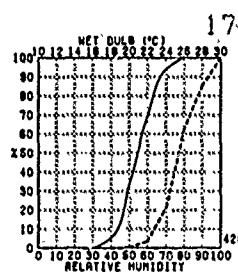
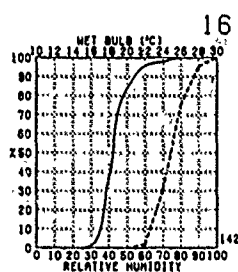
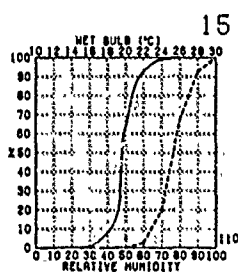
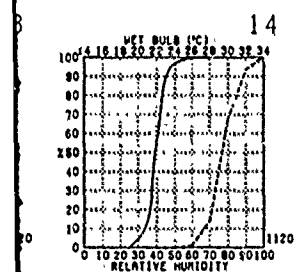
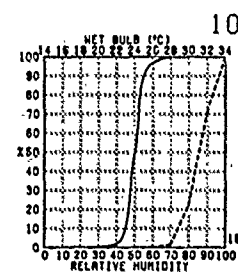
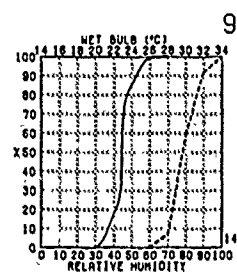
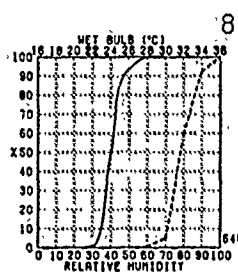
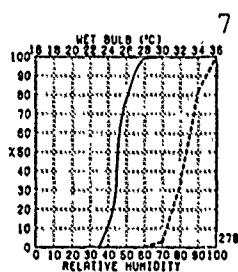
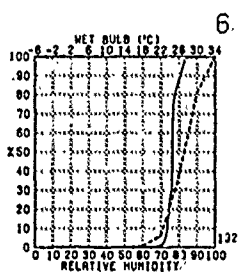
54.5°F.)

to or less than the humidity



to or less than the given

inter than the given value)

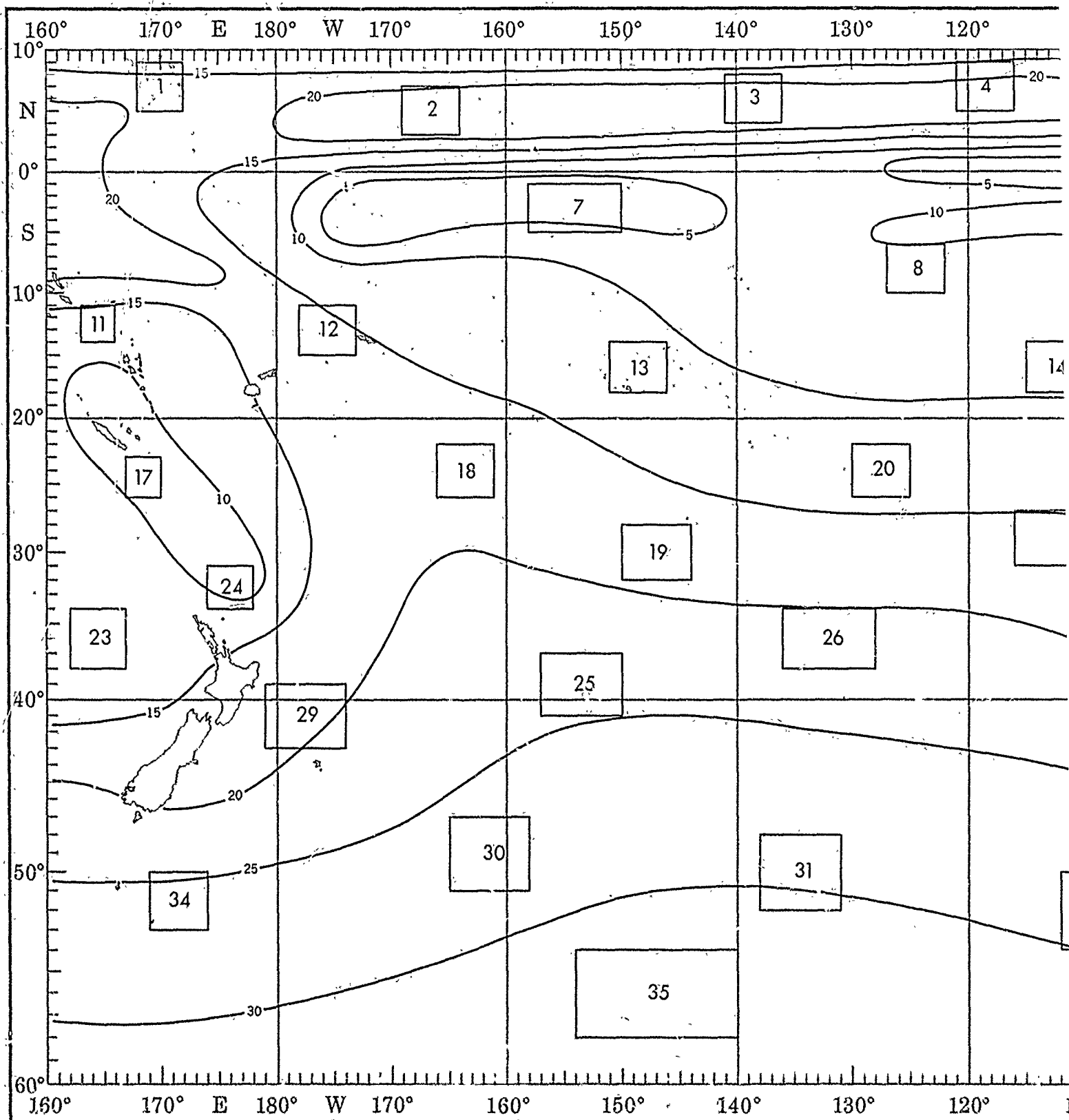


INSUFFICIENT
DATA

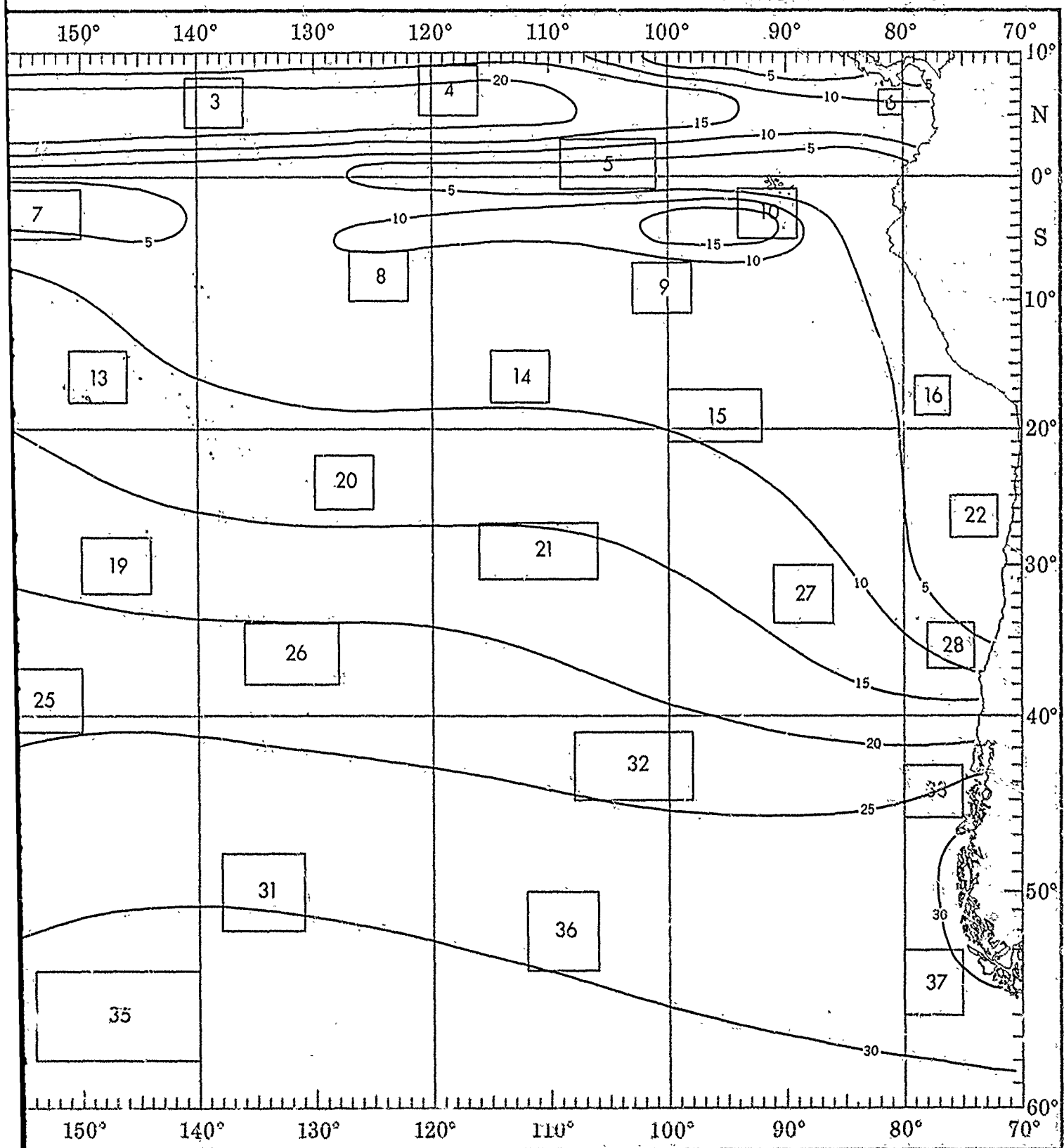
INSUFFICIENT
DATA

the objective compilation of available data for specified areas without regard to suspected biases.
ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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PRECIPITATION

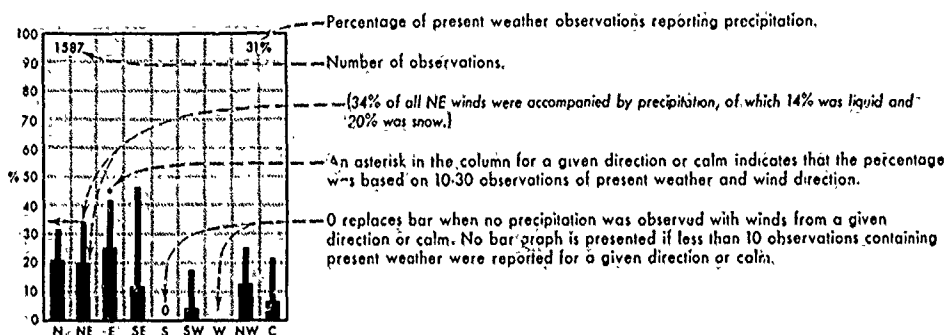


7 1 2

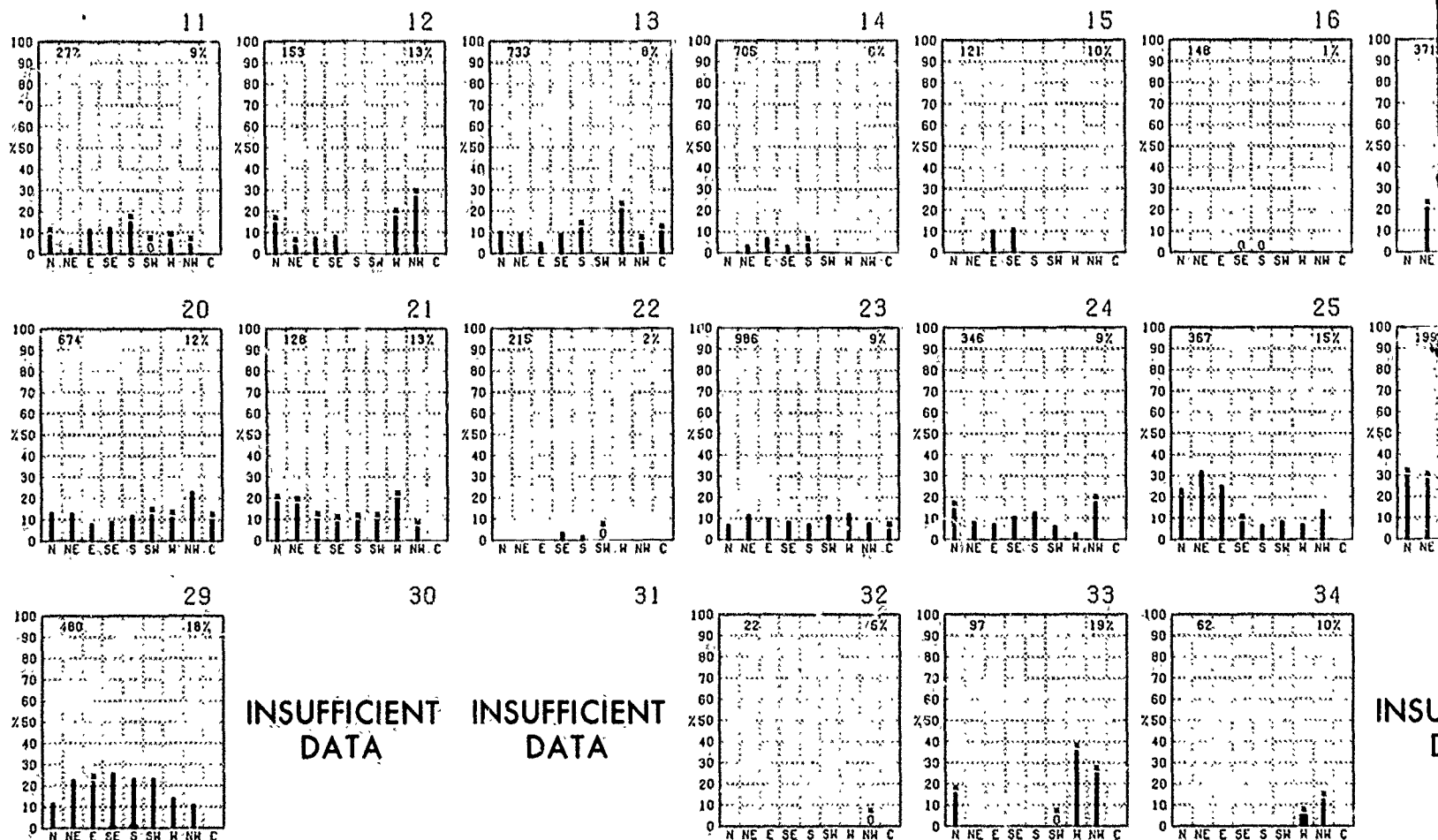
PRECIPITATION

% Pcpn. % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to suspect. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias was

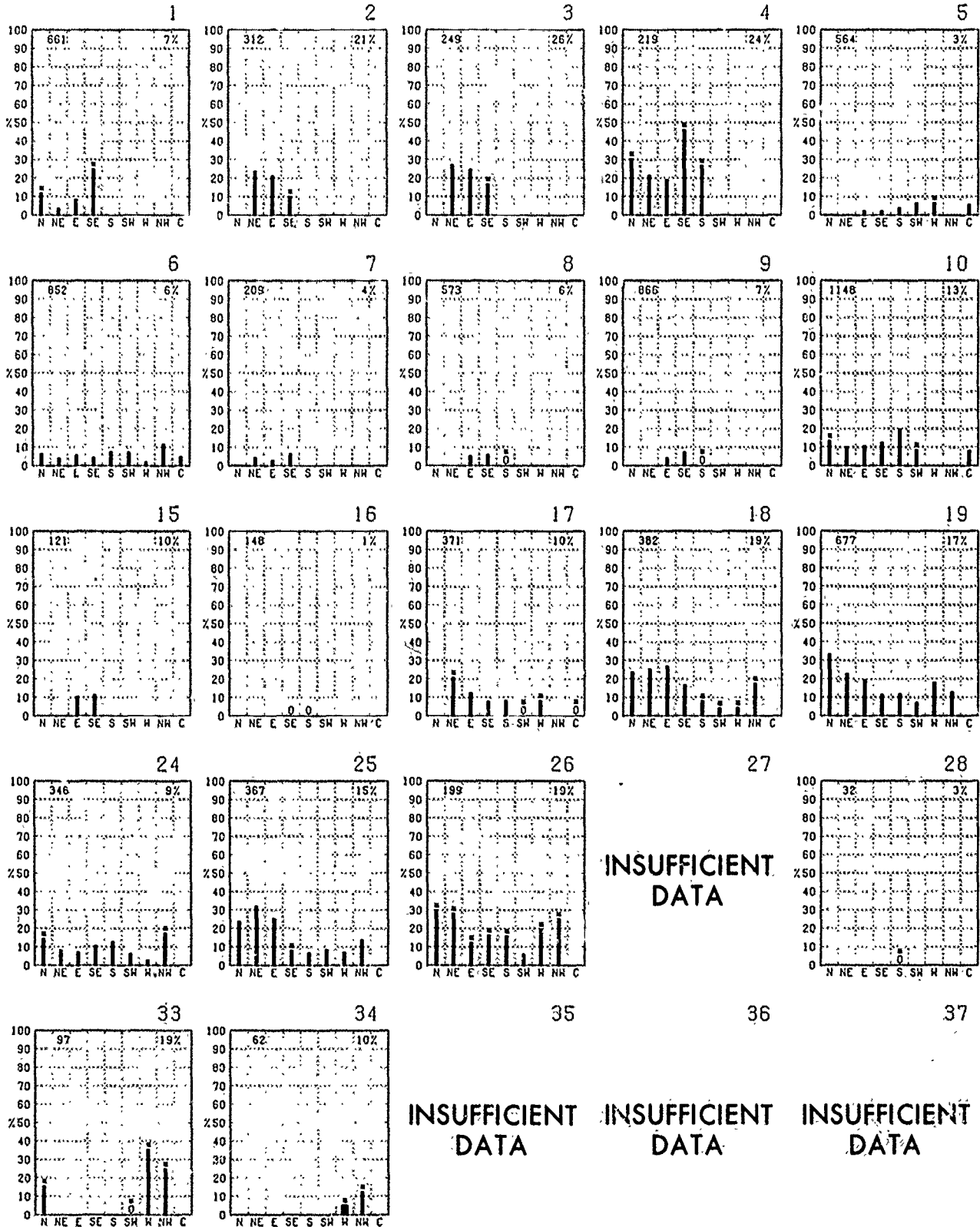
APRIL

and calm that were
freezing rain and freezing
precipitation.

of which 14% was liquid and

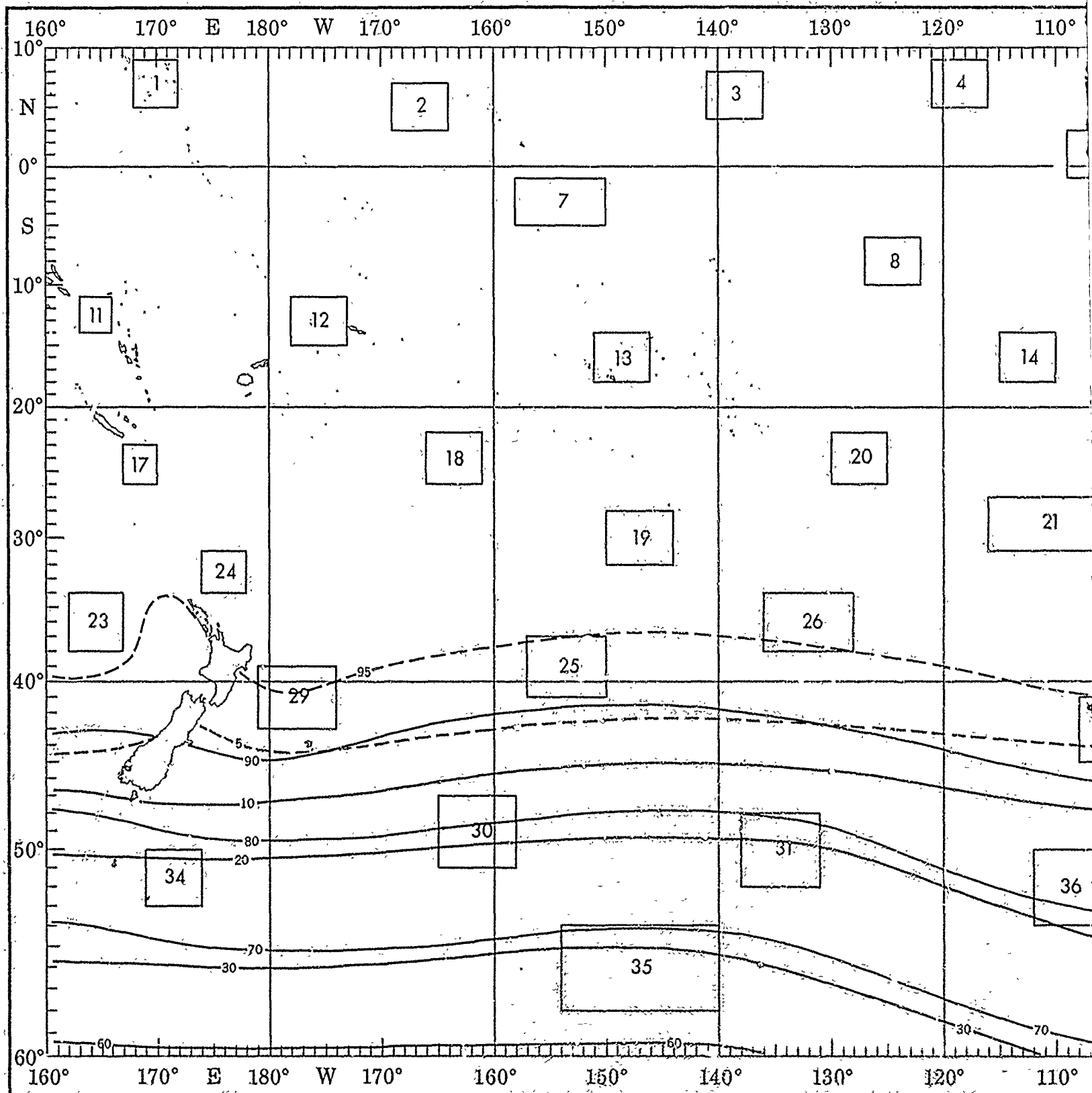
indicates that the percentage
of wind direction

winds from a given
in 10 observations containing
calm.

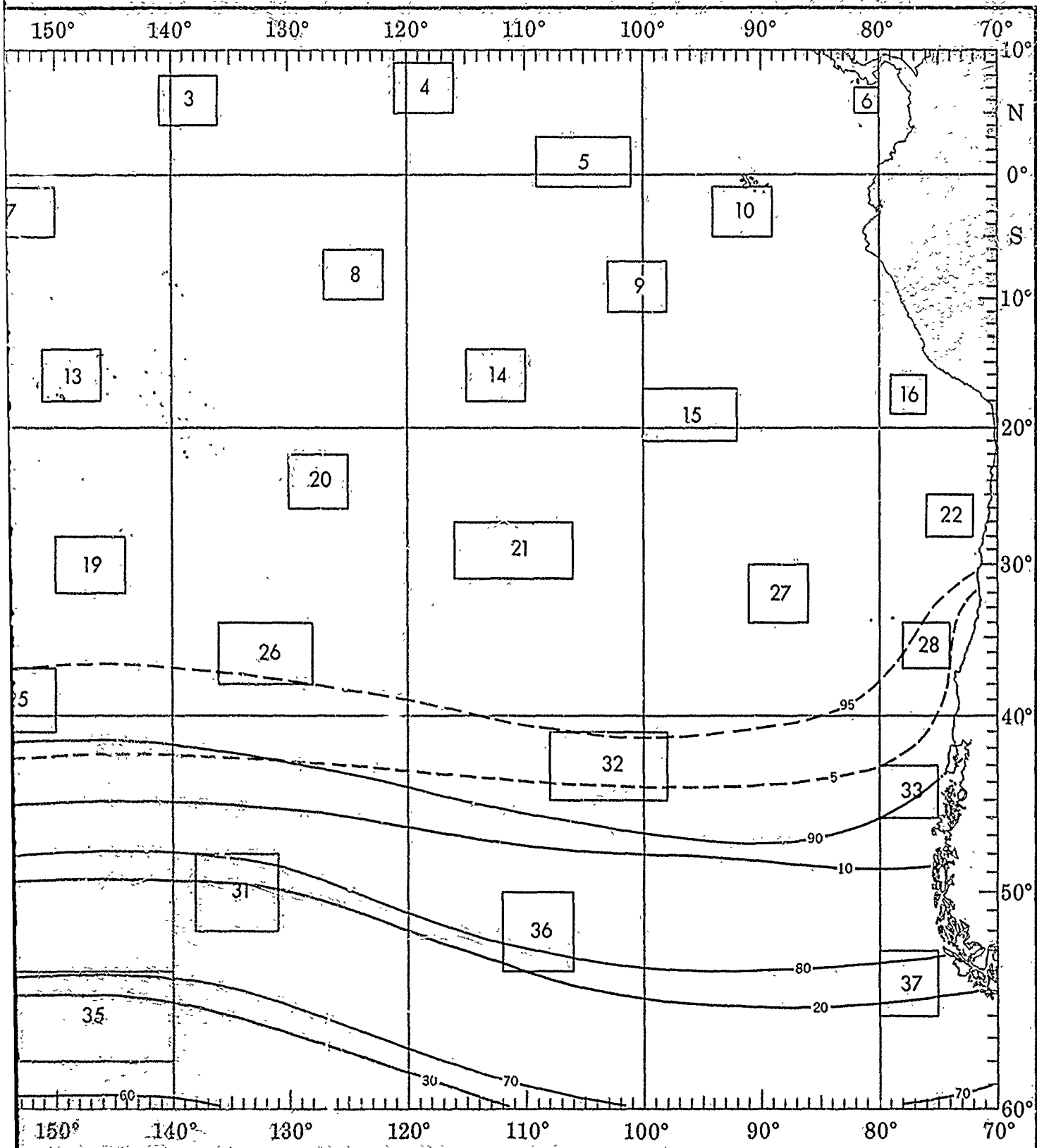


The objective compilation of available data for specified areas without regard to suspected biases.
es. (opposite page) are based on all available data subjectively adjusted where bias was evident.

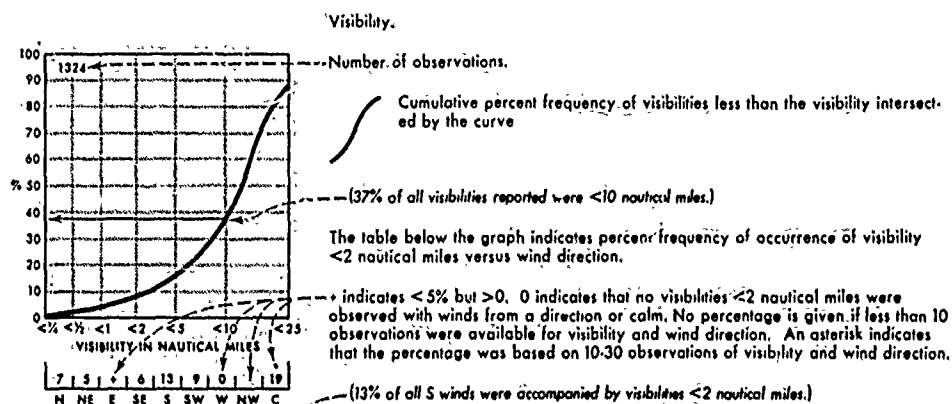
APRIL



VISIBILITY

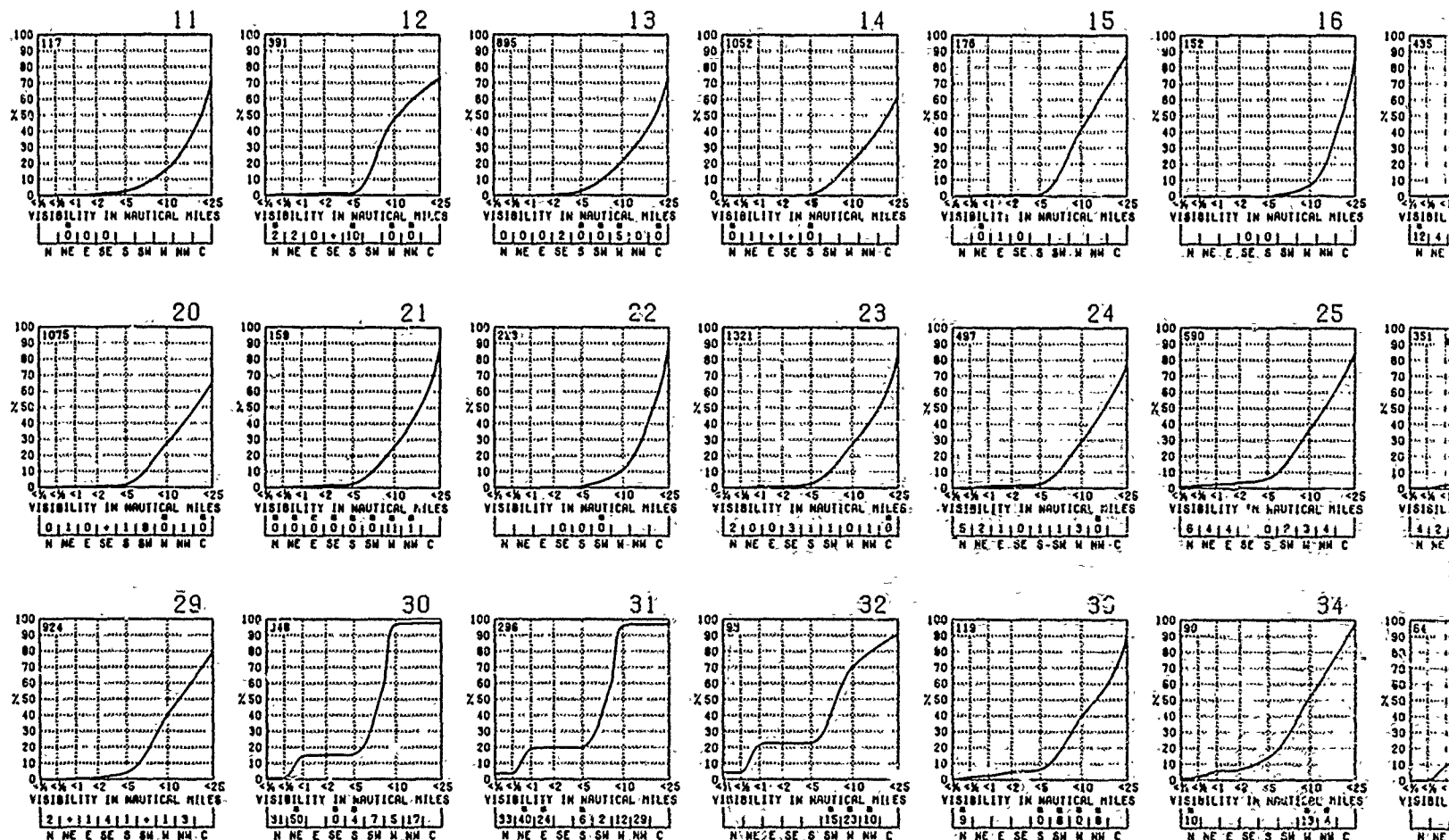


VISIBILITY



BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to suspect. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

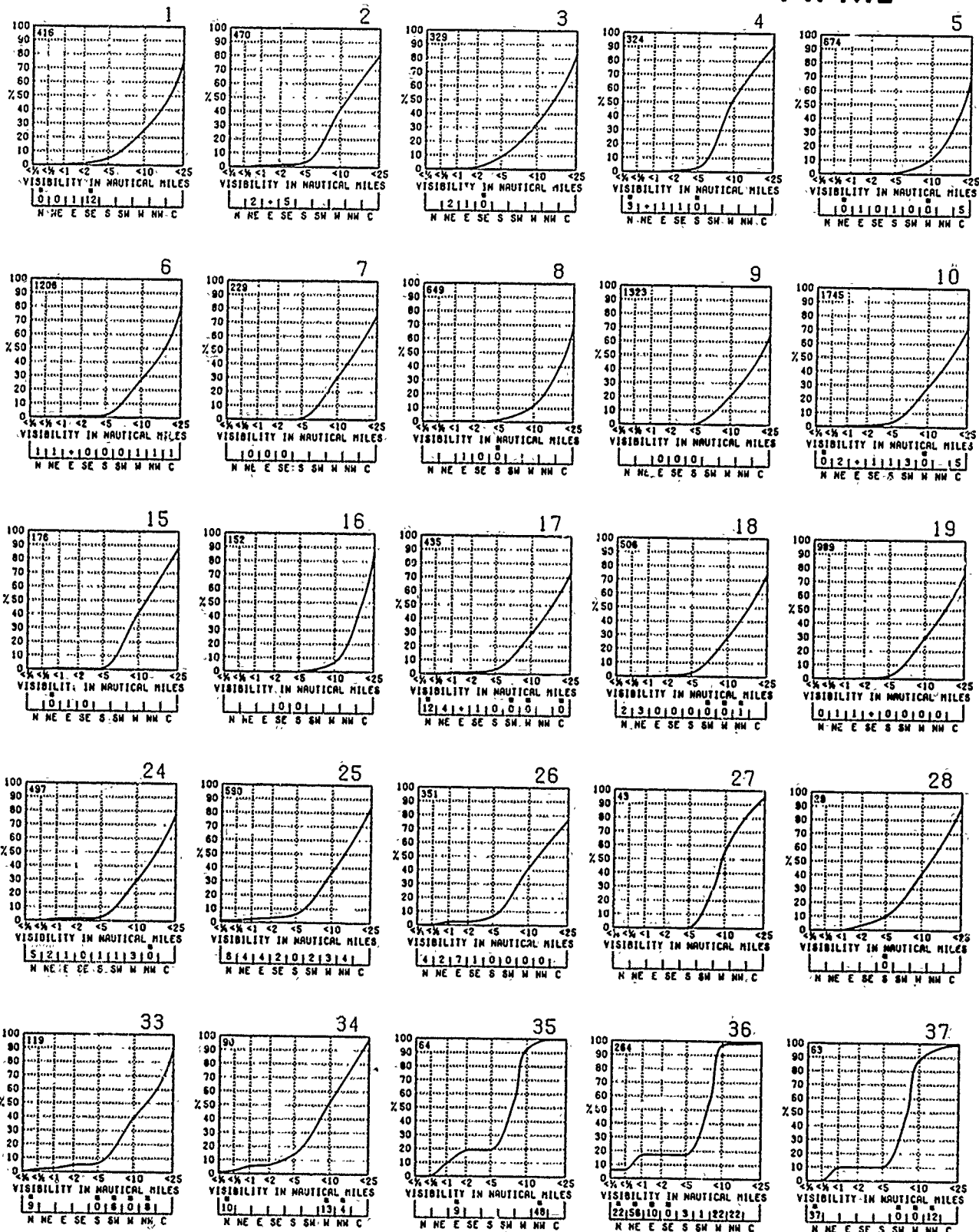
APRIL

than the visibility intersect.

of occurrence of visibility

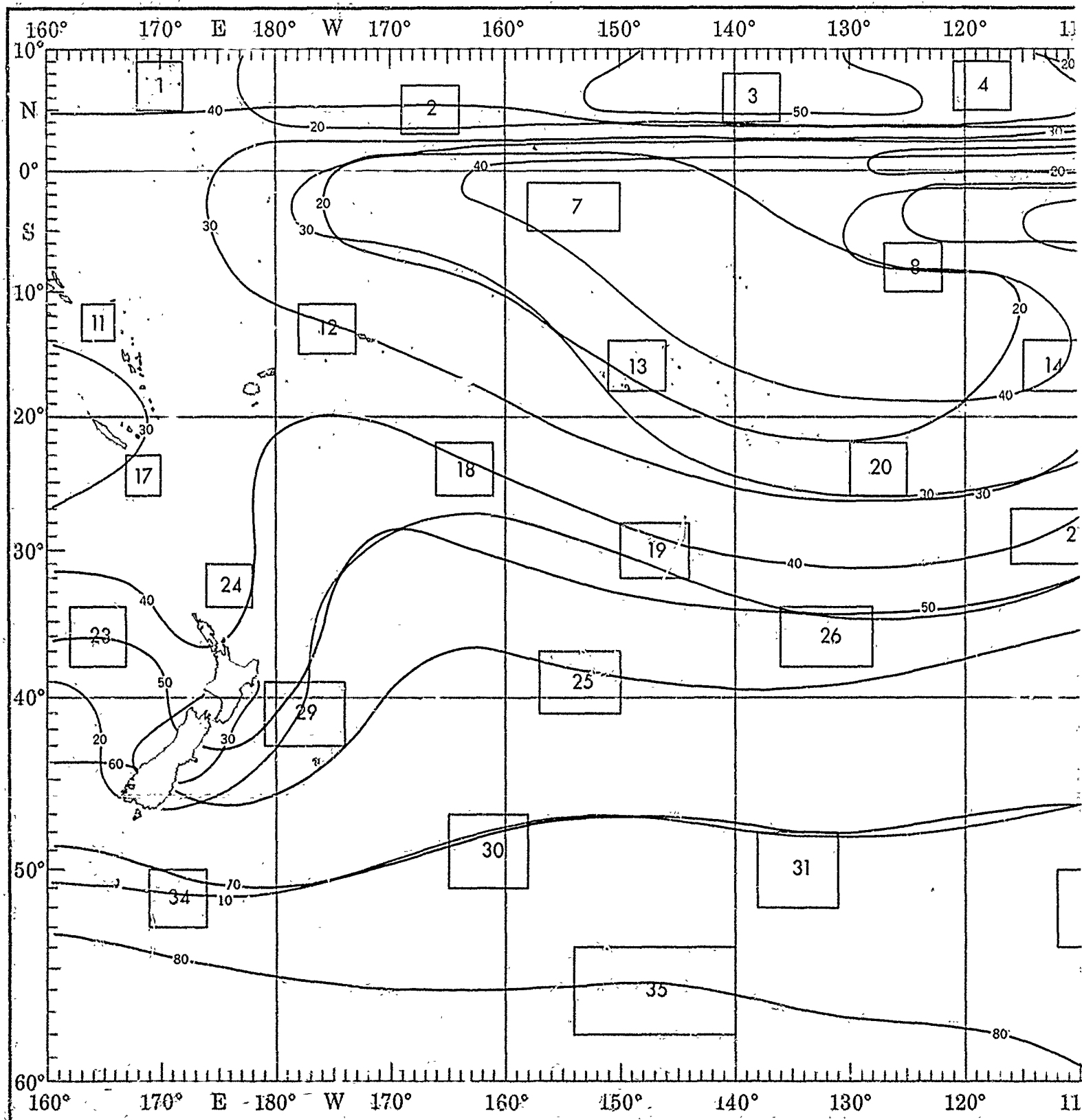
2 nautical miles were
 ntage is given if less than 10.
 on. An asterisk indicates
 visibility and wind direction.

(col miles.)

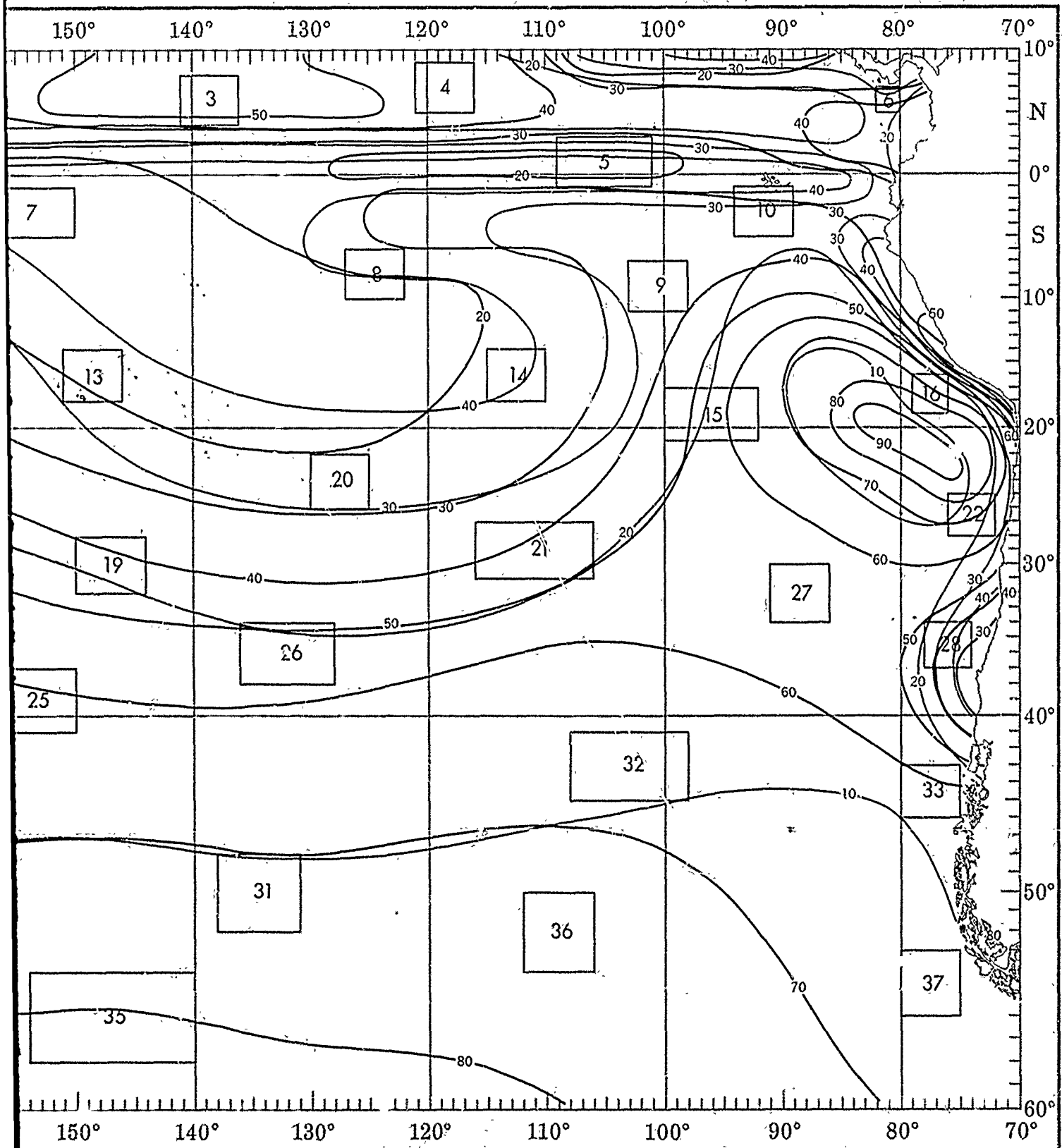


The objective compilation of available data for specified areas without regard to suspected biases, (opposite page) are based on all available data subjectively adjusted where bias was evident.

APRIL



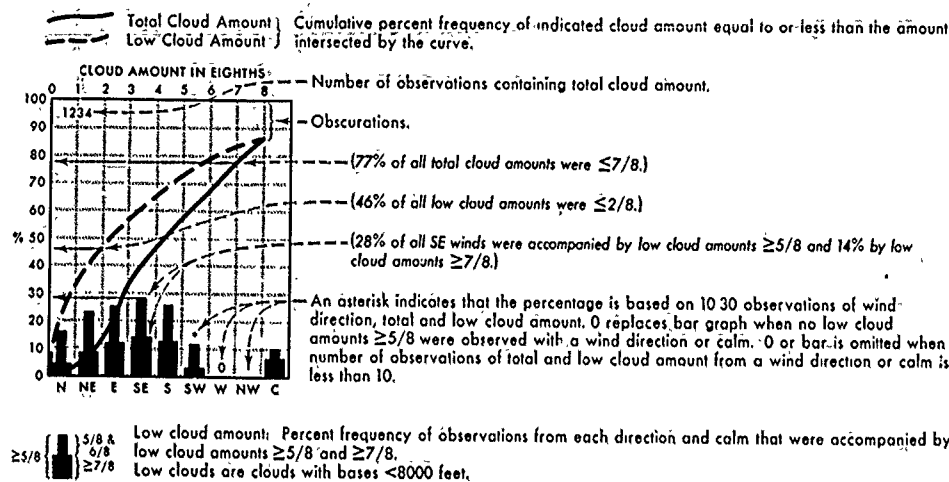
CLOUD COVER



1

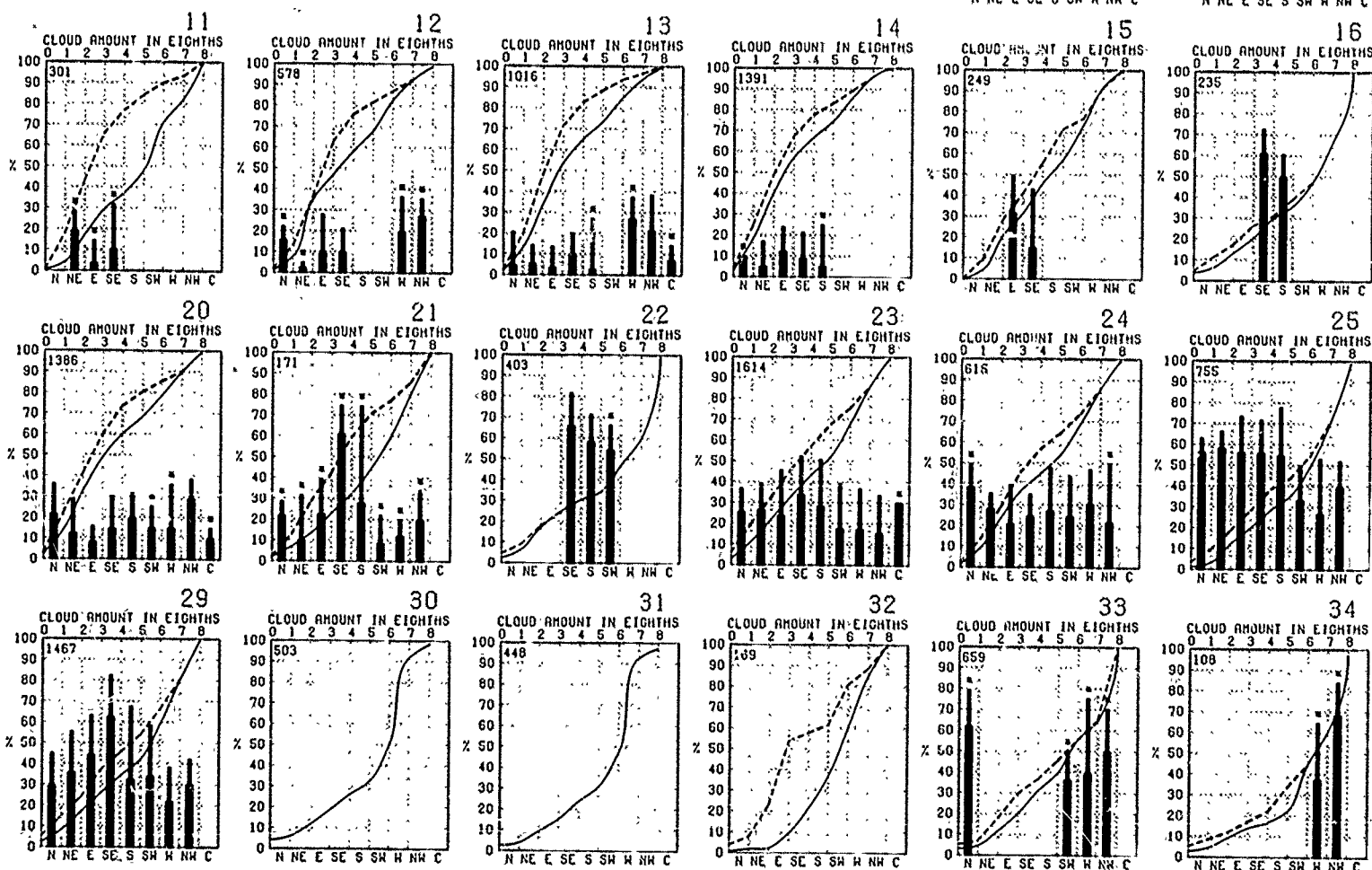
2

CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard. The isopleth analysis (opposite page) are based on all available data subjectively adjusted where

APRIL

equal to or less than the amount

amounts $\geq 5/8$ and 14% by low

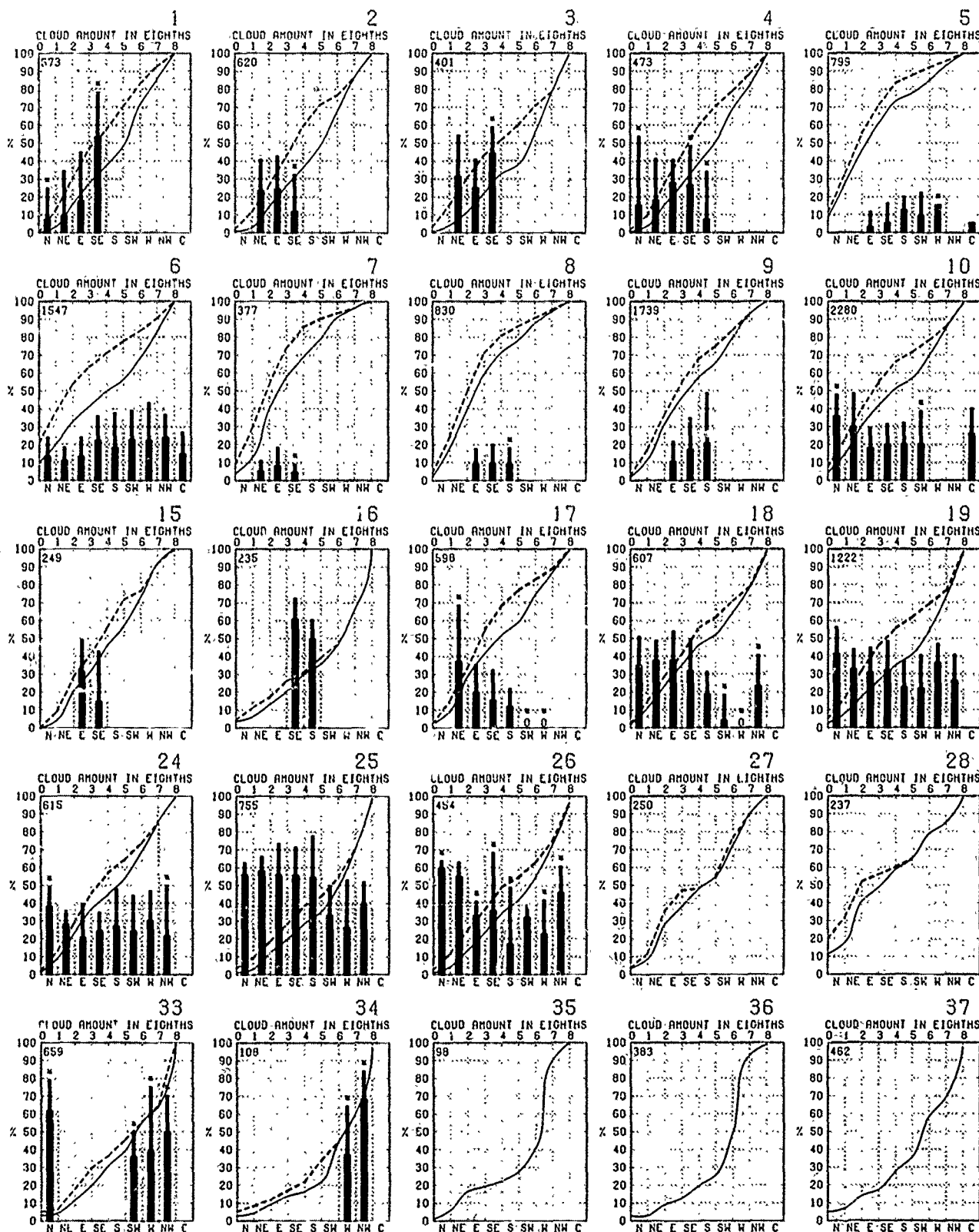
30 observations of wind
graph when no low cloud
calm 0 or bar is omitted when
from a wind direction or calm is

calm that were accompanied by

13
GHTHS
7 8

22
GHTHS
7 8

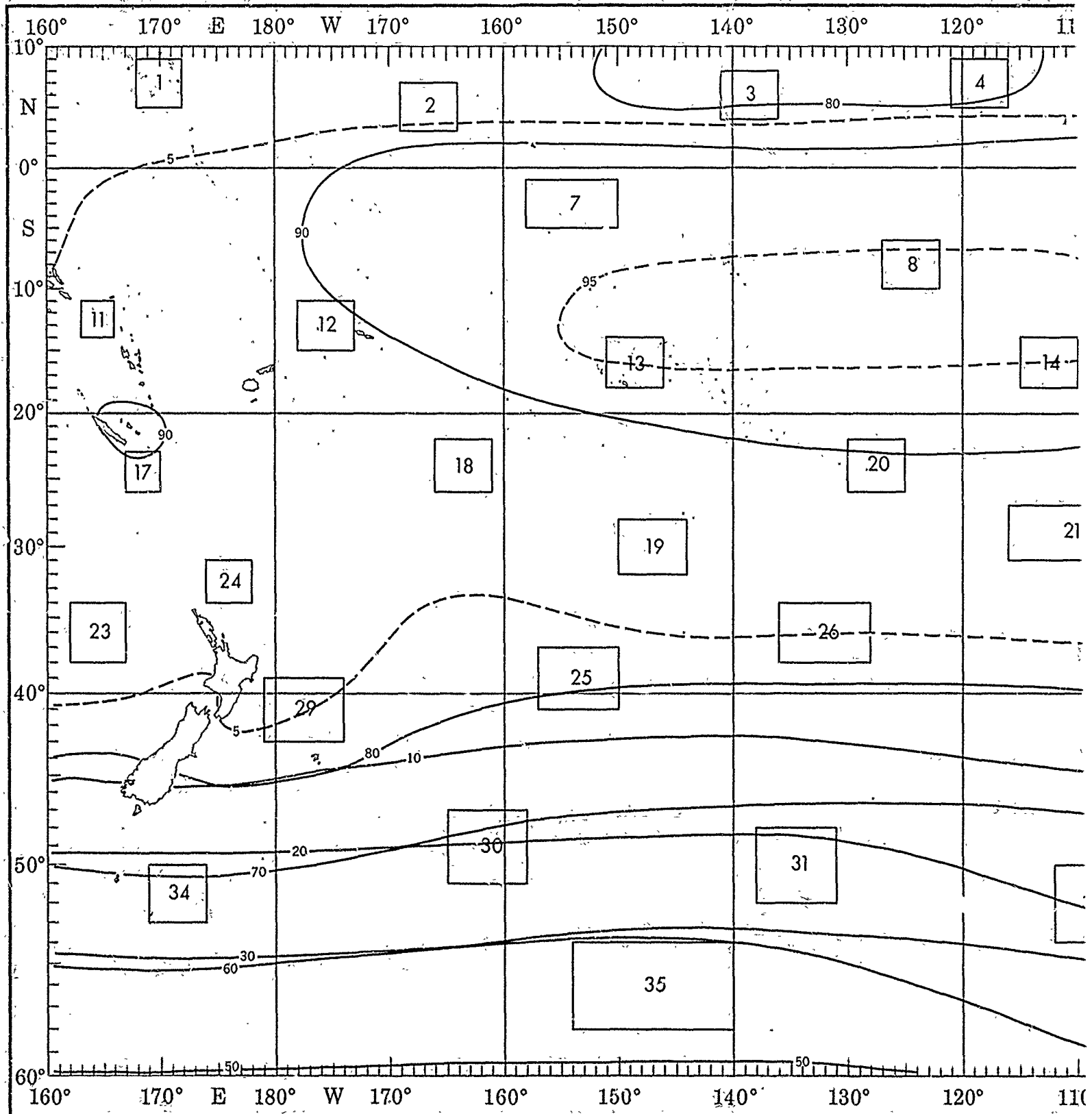
31
GHTHS
7 8



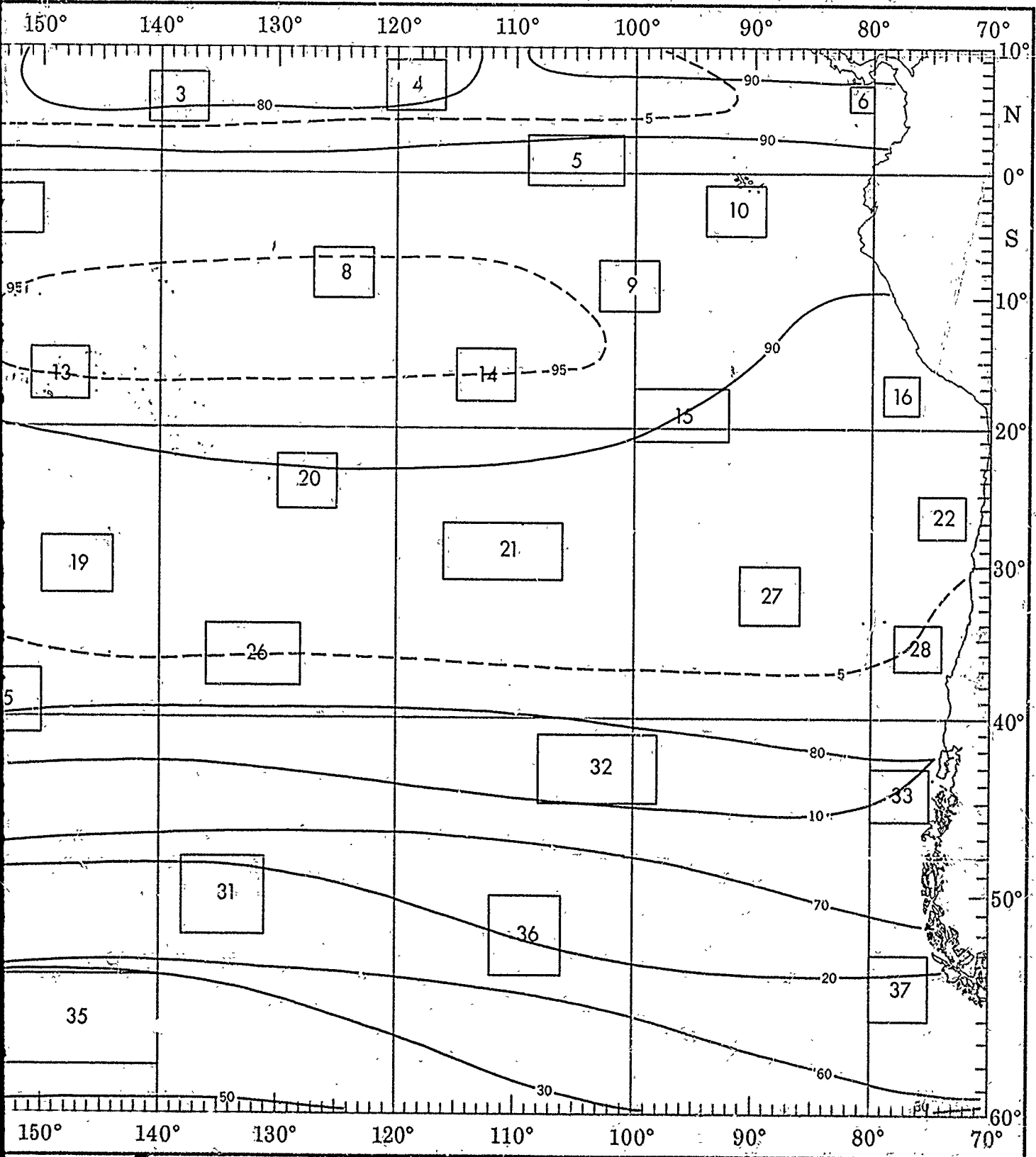
the objective compilation of available data for specified areas without regard to suspected biases.
lyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

APRIL

C



CEILING AND VISIBILITY



1

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Observations are included under ceiling "0 < 1.5".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

++ indicates < 5% but > 0.

Number of observations.

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	1364
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	4
10+20	0	0	0	0	0	2
6+10	0	0	0	0	0	1
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	79
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	1
10+20	0	0	0	0	0	2
6+10	0	0	0	0	0	4
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	571
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	4
10+20	0	0	0	0	0	1
6+10	0	0	0	0	0	2
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	177
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	1
10+20	0	0	0	0	0	2
6+10	0	0	0	0	0	1
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	177
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	177
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	229
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	272
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	1
10+20	0	0	0	0	0	1
6+10	0	0	0	0	0	1
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	258
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	128
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	255
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	255
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	335
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	243
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	258
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	128
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	255
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING	VISIBILITY					
	< 1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	0	255
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	0
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

APRIL

1

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	1	9	48		
50+80	0	0	0	0	0	1	1		
35+50	1	0	0	0	0	0	1		
20+35	0	0	1	2	1	4			
10+20	0	0	0	0	1	6	5		
6+10	0	0	0	1	4	8			
3+6	0	0	0	1	1	5			
1.5+3	0	0	0	0	1	0			
0+1.5	0	0	1	0	0	0			

191

2

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	4	56		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	1		
10+20	0	0	0	0	0	4	15		
6+10	0	0	0	0	0	1	7		
3+6	0	0	0	0	0	0	1		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

234

3

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	2	49		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	2		
10+20	0	0	0	0	1	2	10		
6+10	0	0	0	0	2	6	13		
3+6	0	0	0	1	4	1			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

220

4

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	2	6	54		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	1	2		
20+35	0	0	0	0	0	1	1		
10+20	0	0	1	0	2	3			
6+10	0	0	1	1	5	9			
3+6	0	0	0	1	3	3			
1.5+3	0	0	0	0	2	0			
0+1.5	0	0	0	0	1	0			

184

5

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	2	81		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	4		
10+20	0	0	0	0	0	0	5		
6+10	0	0	0	0	0	1	3		
3+6	0	0	0	0	0	1	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

574

6

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	8	64			
50+80	0	0	0	0	0	1			
35+50	0	0	0	0	0	1	2		
20+35	0	0	0	0	0	1	3		
10+20	0	0	0	0	0	2	8		
6+10	0	0	0	0	1	5			
3+6	0	0	0	0	1	1			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

892

7

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	1	4	82		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	0		
20+35	0	0	0	0	0	1	1		
10+20	0	0	0	0	0	0	4		
6+10	0	0	0	0	1	3	3		
3+6	0	0	0	0	0	0	1		
1.5+3	0	0	0	0	0	0	1		
0+1.5	0	0	0	0	0	0	0		

142

8

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	2	79			
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	4		
10+20	0	0	0	0	0	1	6		
6+10	0	0	0	0	1	3			
3+6	0	0	0	0	0	0	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

560

9

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	1	68		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	3		
20+35	0	0	0	0	0	0	7		
10+20	0	0	0	0	0	1	13		
6+10	0	0	0	0	1	5			
3+6	0	0	0	0	0	0	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

946

10

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	4	63		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	2		
20+35	0	0	0	0	0	0	1		
10+20	0	0	0	0	0	1	2		
6+10	0	0	0	0	1	3	5		
3+6	0	0	0	0	0	1	1		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

1241

14

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	1	77		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	3		
20+35	0	0	0	0	0	0	3		
10+20	0	0	0	0	0	2	8		
6+10	0	0	0	0	1	4			
3+6	0	0	0	0	0	0	0		
1.5+3	0	0	0	0	0	1	0		
0+1.5	0	0	0	0	0	0	0		

759

15

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	1	0	1	7	47			
50+80	0	0	0	0	0	0	2		
35+50	0	0	0	0	0	0	4		
20+35	0	0	0	0	0	1	9		
10+20	0	0	0	0	0	7	10		
6+10	0	0	0	0	0	3	8		
3+6	0	0	0	0	0	1	1		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

114

16

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	2	29		
50+80	0	0	0	0	0	0	3		
35+50	0	0	0	0	0	1	4		
20+35	0	0	0	0	0	4	17		
10+20	0	0	0	0	0	2	26		
6+10	0	0	0	0	1	9			
3+6	0	0	0	0	0	2			
1.5+3	0	0	0	0	0	1			
0+1.5	0	0	0	0	0	0	0		

119

17

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	3	68		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	5		
10+20	0	0	0	0	0	2	10		
6+10	0	0	0	0	1	3			
3+6	0	0	0	0	2	1	2		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		

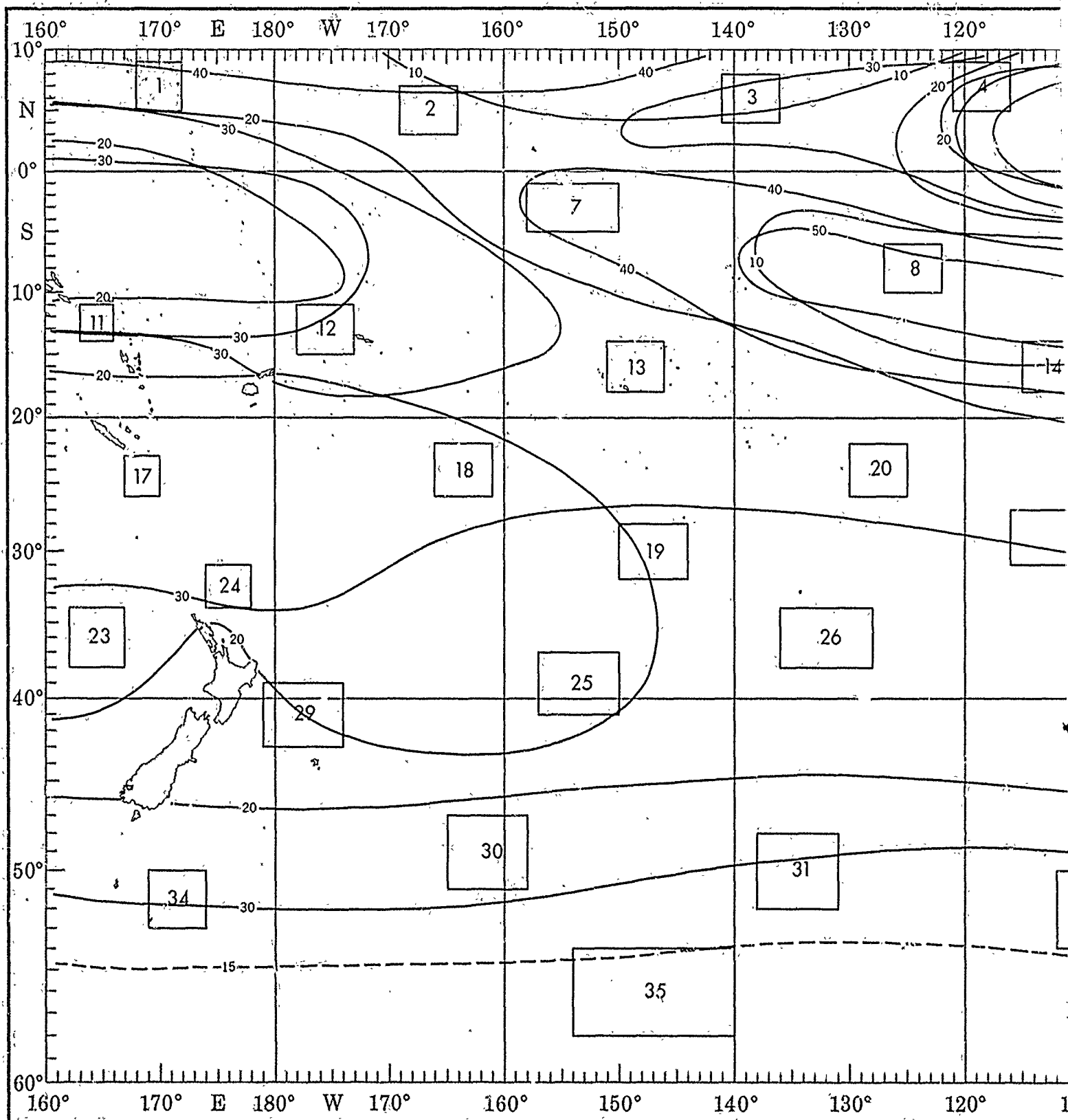
254

18

VISIBILITY		1/2		2/5		5/10		10/10	
NC	0	0	0	0	0	2	55		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	7		
10+20	0	0	0	0	1	3	15		
6+10	0	0	0	1	5	5			
3+6	0	0	0	1	1	1			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	1	0	0			

APRIL

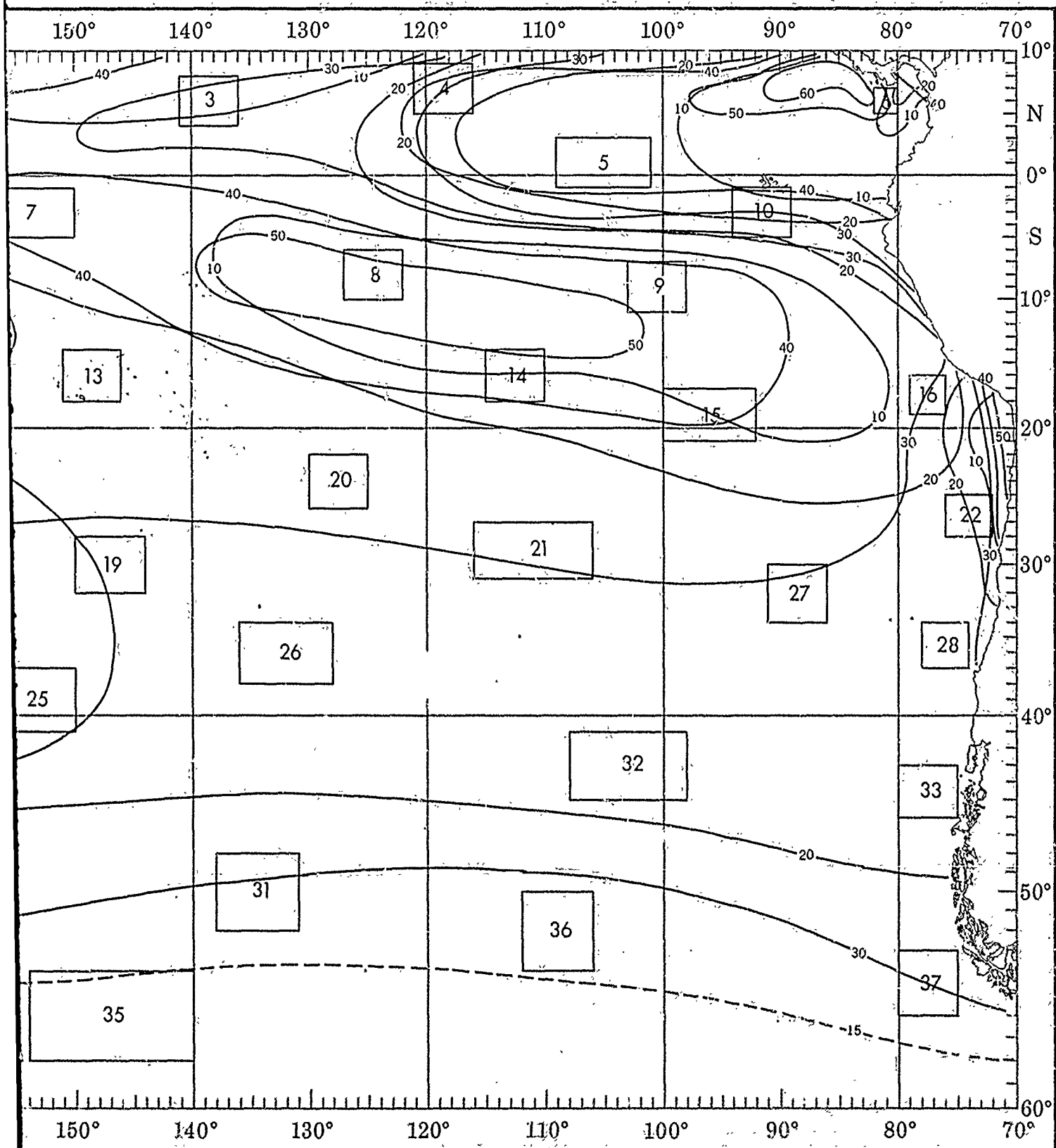
WIND



1

1

WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbv) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet:

Low cloud ceiling heights are estimated from the height of low clouds (h_L) when low cloud amount (N_L) is $\geq 5/8$.

— (2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

*, indicates $< 5\%$ but > 0 .

-Number of observations.

ICC - Vbty	0-9	10-19	20-29	30-39	≥40
<15 & or <5	+	1	1	+	0
<6 & or <2	2	2	1	1	+
Vbty <2	1	2	1	1	+
<10 & or <5	3	4	2	1	1
<20 & or <12	8	9	6	5	2
Vbty ≥3	9	11	12	3	1
≥50 & ≥5	12	13	15	7	3
N/C & ≥10	4	2	1	+	0

WIND SPEED (KNOTS)					
	0-3	4-10	11-21	22-33	34+
LCC = VSBY					
<1.5 4 OR <5	0	0	1	1	0
<6 4 OR <2	0	4	3	1	0
VSBY <2	0	0	1	1	0
<10 4 OR <2	1	12	7	1	0
<20 4 OR <5	1	15	18	2	0
VSBY >5	4	37	49	4	0
>5C 4 >5	3	22	31	4	0
NC 4 >10	2	19	24	3	0

2

WIND SPEED (KNOTS)

LCC = YSBY	0-3	4-10	11-22	23+
<1.5 & OR <1.5	0	0	+	0
<6 & OR <2	0	1	2	0
YSBY <2	0	0	2	0
<10 & OR <2	0	2	8	1
<20 & OR <5	0	6	21	4
YSBY ≥5	1	30	56	1
≥50 & ≥5	1	20	35	5
NC & ≥10	1	18	33	4

6

WIND SPEED (KNOTS)

LCC = YSBY	0-3	4-10	11-22	23-33
<1.54 OR <1.5	+	0	0	0
<6.4 OR <2	+	1	0	0
YSBY <2	+	0	0	0
<10.4 OR <2	2	5	1	0
<20.4 OR <5	6	11	2	0
YSBY >5	27	57	15	+
>50.4 >5	20	43	12	+
NC > 10	16	38	10	+

7

WIND SPEED (KNOTS)

LCC = VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <1.5	0	0	0	0	0
<6.4 & OR <2	0	1	1	0	0
VSBY <2	0	0	0	0	0
<10.4 & OR <2	0	4	4	0	0
<20.4 & OR <5	0	7	4	1	0
VSBY ≥5	0	54	42	2	0
≥50 & ≥5	0	46	38	1	0
NC & ≥10	0	46	35	1	0

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions. LCC ≥ 5000 ft., (or no LCC), Vsb_y ≥ 5 nm., and Wind ≤ 21 kts.

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC < 300 ft., Vsb_y < 1 nm., Wind < 6 or ≥ 34 kts.

Satisfactory conditions between poor and optimum

11

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-33	34+
<1.5 & OR <5	0	0	0	0	0
<6 & OR <12	1	0	0	0	0
VSBY <2	0	0	0	0	0
<10 & OR <2	2	2	7	0	0
<20 & OR <5	4	4	12	0	0
VSBY >5	16	36	41	6	0
>50 & >5	12	34	28	5	0
HC >10	12	34	26	5	0

		12 WIND SPEED (KNOTS)				
LCC = YBZY		0-3	4-10	11-22	23-33	34+
<1.5 4 OR <5		0	1	0	0	0
<6 4 OR <2		0	2	1	1	0
YBZY <2		0	1	0	0	0
<10 4 OR <2		0	4	7	1	0
<20 4 OR <6		1	5	10	2	0
YBZY <6		13	49	33	4	0
250 4 >5		12	41	22	1	0
NC <2 10		12	38	22	0	0

		WIND SPEED (KNOTS)			
LCC = YSBY		0-3	4-10	11-22	23-33
<1.5 4 OR +5		0	0	+	0
+6 4 OR +2		0	+	+	0
YSBY +2		0	+	0	0
<10 4 OR +2		+	2	+	0
<20 4 OR +5		1	5	5	1
YSBY +5		10	45	41	1
+50 4 +5		9	39	34	1
NC 4 +10		9	36	31	1

14

WIND SPEED--(KNOTS)

LCC - VARY	0-3	4-10	11-22	23-33	34
<1 S & OR <1 S	0	0	0	0	0
<6 S OR <2	0	0	0	0	0
- VSBT <2	0	0	0	0	0
<10 S OR <2	0	2	4	0	0
<20 S OR <5	0	3	11	1	0
- VSBT >5	3	49	56	3	0
>50 S >5	3	32	41	2	0
- NC > 10	3	32	41	2	0

		WIND SPEED (KNOTS)			
LCC - YSUB		2-3	4-10	11-22	23-30
		0	0	0	0
<1.5 & OR <1.5		0	0	0	0
<6 & OR <2		0	1	1	1
YBBY <2		0	0	1	0
<10 & OR <2		0	3	10	1
<20 & OR <5		0	6	21	4
YBBY >5		1	25	61	0
>30 & >5		1	16	33	6
HC > 10		1	15	27	5

		WIND SPEED (KNOTS)				
		0-3	4-10	11-22	23-34	35-47
LCC - V63T		0	3	10	21	22
*1.5 4 OR *5		0	0	0	0	0
*6 4 OR *2		0	2	1	0	0
V63T *2		0	0	0	0	0
*10 4 OR *2		0	1	16	1	0
*20 4 OR *5		1	16	23	2	0
*50 7 *5		3	40	54	3	0
*50 *2 *5		2	16	15	1	0
*100 10 *5		1	16	3	1	0

		WIND SPEED (KNOTS)			
LIC = YSBY		0-3	4-10	11-21	22-33
<3 & 4 OR <5		0	0	0	0
<6 & 4 OR <2		0	1	1	+
YSBY <2		0	+	+	0
<10 & 4 OR <2		0	2	4	1
<20 & 4 OR <6		1	8	10	2
YSBY >6		8	48	38	6
>50 & >6		7	39	26	2
NC > 10		7	38	26	2

		WIND SPEED (KNOTS)			
		0-3	4-10	11-22	23-34
LCC - YSB1		0	0	0	0
<1.5 OR <5		0	0	0	0
<6 OR <2		0	0	1	0
YSB1 <2		0	0	1	0
<10 OR <2		2	3	5	0
<20 OR <5		2	9	14	7
YSB1 <5		3	38	44	11
<50 OR <6		1	25	27	4
NC > 10		1	28	26	3

22
WIND SPEED (KNOTS)

LCC - YSBY	0- 3	4- 10	11- 20	21- 30	31- 39
<1.5 4 OR <1.5	0	2	0	0	0
<6 4 OR <2	1	3	0	0	0
YSBY <2	0	0	0	0	0
<10 4 OR <2	1	8	6	1	0
<20 4 OR <5	2	19	15	1	0
YSBY >5	6	47	44	2	0
350 4 >5	4	15	12	1	0
NC >2 10	4	13	11	1	0

23

WIND SPEED: (KNOTS)

LOC - VSBT	0-1	1-4	11-22	23-34
<1.6 KM <1.6	0	0	0	0
<6.4 OR <2	0	0	0	0
VSBT <2	0	0	0	0
<10.4 OR <2	0	0	0	0
<20.4 OR <5	1	8	16	6
VSBT <5	4	35	44	11
<50.4 OR <5	3	24	25	5
WC <10	3	23	24	4

24

WIND SPEED (KNOTS)

LOG	0-3	4-10	11-20	21-30	31-40
1000	0	0	0	0	0
1000	0	1	0	0	0
1000	0	0	0	0	0
1000	0	0	1	2	1
1000	0	8	22	5	1
1000	2	27	58	11	0
1000	1	10	39	6	0
1000	15	32	5	0	0

25

WIND SPEED (KNOTS)

LCC - Y801	0-10	11-20	21-30	31-40
1.6.4.0.4.5	+	1	1	0
26.4.0.4.2	+	1	3	1
Y801.4.2		1	2	0
410.4.0.4.2	+	8	9	5
420.4.0.2.5	+	12	20	2
480.2.5	2	23	9	17
480.4.2.5	1	10	22	6
48.4.2.10	1	14	19	5

		WIND SPEED (KNOTS)				
		0-3	4-10	11-20	21-30	31-40
LCC	VSST					
<1.5 OR <1.5		0	+	+	0	0
<6 OR <2		0	1	1	1	1
VSST	2	0	+	+	1	+
<10 OR <2		+	+	6	4	1
<20 OR <6		+	11	15	7	3
VSST	5	2	32	42	16	3
>50 >10		1	19	21	5	1
NC	>10	1	18	19	4	1

INSUFFICIENT
DATA

INSUFFICIENT
DATA

32
WIND SPEED (KNOTS)

LOC - VSBT	0-3	4-11	12-22	23-33
<1.5 OR <.5	0	0	0	0
<6 OR <2	0	0	12	0
VSBT <2	0	0	0	0
<10 OR <2	0	0	12	4
<20 OR <5	0	0	27	4
VSBT <6	0	23	62	15
<50 OR <8	0	23	27	12
>50 OR >10	0	23	27	12

		WIND SPEED (KNOTS)				
		0-4	5-11	12-21	22-33	34-47
LCC - Y3BT		0	3	10	21	33
43.6 4 OR 4.5		0	2	3	1	9
46.4 02 42		1	2	5	2	1
Y3BT 42		0	1	1	1	1
410 6 OR 42		1	5	12	5	1
420 4 OR 45		2	11	24	10	1
Y3BT 45		2	27	43	22	0
450 4 45		1	13	22	7	0
AC 4 2 10		3	10	14	5	0

	0	1	11	22
LCC - TSDY	0	0	33	33
*1.64 OR *5	0	0	2	0
*8 OR *2	0	0	2	0
YSDY *2	0	0	0	0
*10 OR *2	0	0	2	0
*20 OR *5	2	0	5	0
YSDY *5	9	9	3	5
*20 *2	2	4	14	2
NC *2 *10	2	4	14	2

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

APRIL

Occurrences of $N_h \leq 5/8$.

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-33	34-40
LCC - VSBY	0-3	0	0	0	0	0
LCC - VSBY	4-10	0	0	0	0	0
LCC - VSBY	11-21	0	0	0	0	0
LCC - VSBY	22-33	0	0	0	0	0
LCC - VSBY	34-40	0	0	0	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-33	34-40
LCC - VSBY	0-3	0	0	0	0	0
LCC - VSBY	4-10	0	0	0	0	0
LCC - VSBY	11-21	0	0	0	0	0
LCC - VSBY	22-33	0	0	0	0	0
LCC - VSBY	34-40	0	0	0	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-33	34-40
LCC - VSBY	0-3	0	0	0	0	0
LCC - VSBY	4-10	0	0	0	0	0
LCC - VSBY	11-21	0	0	0	0	0
LCC - VSBY	22-33	0	0	0	0	0
LCC - VSBY	34-40	0	0	0	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-33	34-40
LCC - VSBY	0-3	0	0	0	0	0
LCC - VSBY	4-10	0	0	0	0	0
LCC - VSBY	11-21	0	0	0	0	0
LCC - VSBY	22-33	0	0	0	0	0
LCC - VSBY	34-40	0	0	0	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-33	34-40
LCC - VSBY	0-3	0	0	0	0	0
LCC - VSBY	4-10	0	0	0	0	0
LCC - VSBY	11-21	0	0	0	0	0
LCC - VSBY	22-33	0	0	0	0	0
LCC - VSBY	34-40	0	0	0	0	0

3				14
TS)	- WIND SPEED (KNOTS)			
234	LCC + VSBY	C 3	4- 10	11- 22- 23 33
0	<1.5 4 OR <.5	0	+	0 0 0
0	<8 4 OR <2	0	+	0 0 0
0	VSBY <2	0	0	0 0 0
0	<10 4 OR <2	0	2	4 + 0
0	<2 4 OR <6	0	5	11 - 1 C
0	VSBY <5	3	39	56 3 0
0	<50 4 >6	3	32	41 2 0
0	HC > 10	3	32	41 2 0
687				753

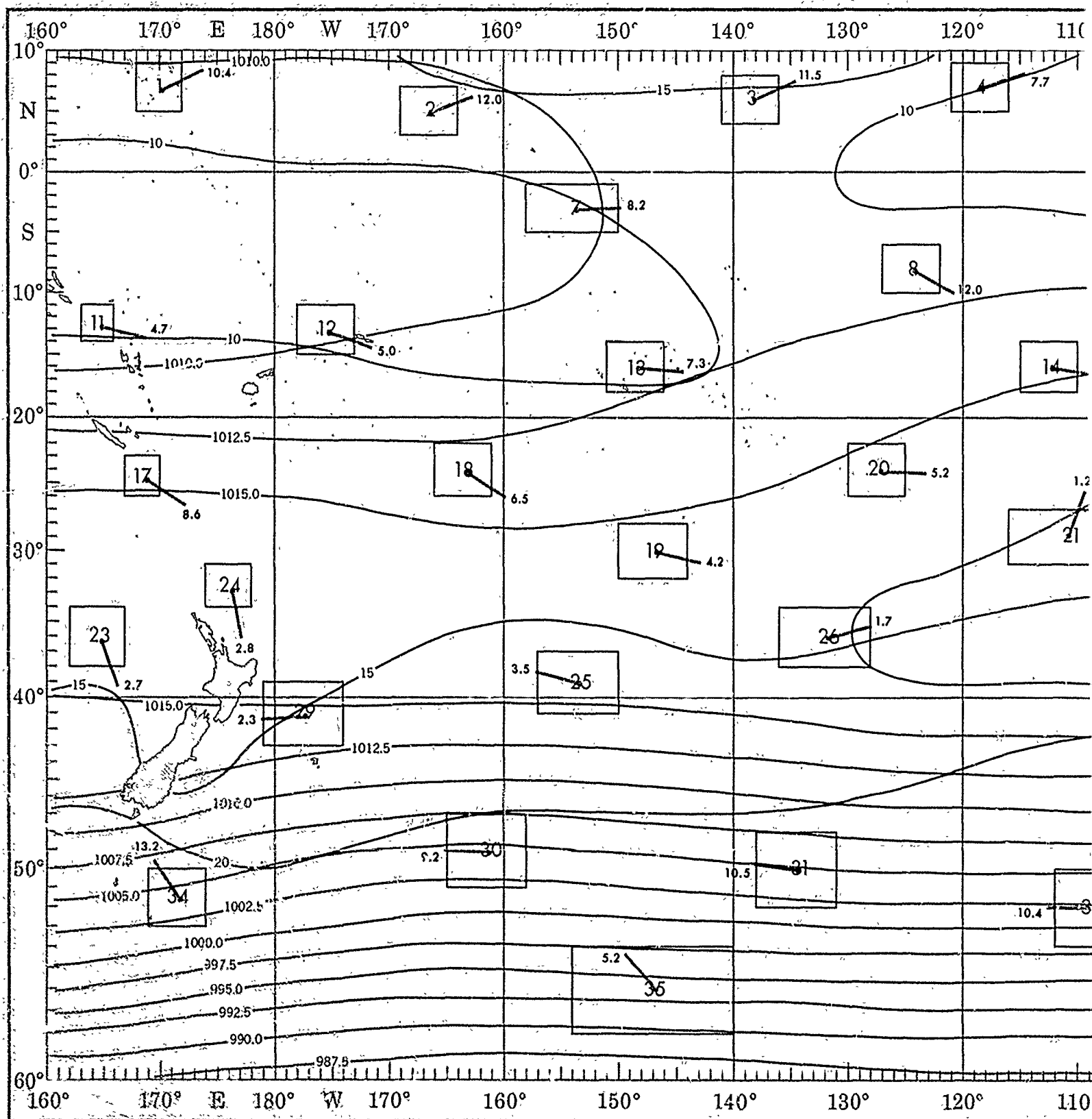
23	24	25	26	27	28
WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)	WIND SPEED (KNOTS)
LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY	LCC - VSBY
0-3	0-3	0-3	0-3	0-3	0-3
4-10	4-10	4-10	4-10	4-10	4-10
11-21	11-21	11-21	11-21	11-21	11-21
22-33	22-33	22-33	22-33	22-33	22-33
34	34	34	34	34	34
<1.5 OR <5	<1.5 OR <5	<1.5 OR <5	<1.5 OR <5	<1.5 OR <5	<1.5 OR <5
<6 OR <2	<6 OR <2	<6 OR <2	<6 OR <2	<6 OR <2	<6 OR <2
VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2	VSBY <2
<10 OR <2	<10 OR <2	<10 OR <2	<10 OR <2	<10 OR <2	<10 OR <2
<20 OR <5	<20 OR <5	<20 OR <5	<20 OR <5	<20 OR <5	<20 OR <5
VSBY <5	VSBY <5	VSBY <5	VSBY <5	VSBY <5	VSBY <5
<50 <15	<50 <15	<50 <15	<50 <15	<50 <15	<50 <15
NC < 10	NC < 10	NC < 10	NC < 10	NC < 10	NC < 10
904	904	904	904	904	904

32						33						34						35						36						37					
WIND SPEED (KNOTS)						WIND SPEED (KNOTS)						WIND SPEED (KNOTS)						WIND SPEED (KNOTS)						WIND SPEED (KNOTS)						WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-22	23-33	34	LCC - VSBY	0-3	4-10	11-22	23-33	34	LCC - VSBY	0-3	4-10	11-22	23-33	34	LCC - VSBY	0-3	4-10	11-22	23-33	34	LCC - VSBY	0-3	4-10	11-22	23-33	34	LCC - VSBY	0-3	4-10	11-22	23-33	34
<1.5 4 OR <1.5	0	0	0	0	0	<1.5 4 OR <1.5	0	2	0	1	0	<1.5 4 OR <1.5	0	0	2	2	0	<1.5 4 OR <1.5	0	0	2	2	0	<1.5 4 OR <1.5	0	0	0	0	0	<1.5 4 OR <1.5	0	0	0	0	0
<6 4 OR <2	0	0	12	0	0	<6 4 OR <2	1	2	5	2	1	<6 4 OR <2	0	0	2	2	0	<6 4 OR <2	0	0	2	2	0	<6 4 OR <2	0	0	0	18	0	<6 4 OR <2	0	0	0	18	0
VSBY <2	0	0	0	0	0	VSBY <2	0	1	1	1	1	VSBY <2	0	0	2	0	0	VSBY <2	0	0	2	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0
<10 4 OR <2	0	0	12	4	0	<10 4 OR <2	1	6	12	5	1	<10 4 OR <2	0	0	9	2	0	<10 4 OR <2	0	0	9	2	0	<10 4 OR <2	0	0	0	18	0	<10 4 OR <2	0	0	0	18	0
<20 4 OR <5	0	0	27	4	0	<20 4 OR <5	2	11	24	10	1	<20 4 OR <5	2	0	18	16	0	<20 4 OR <5	2	0	18	16	0	<20 4 OR <5	0	9	18	27	0	<20 4 OR <5	0	9	18	27	0
VSBY <5	0	23	62	16	0	VSBY <5	2	27	43	22	0	VSBY <5	9	9	37	26	5	VSBY <5	9	9	37	26	5	VSBY <5	0	27	36	36	0	VSBY <5	0	27	36	36	0
>60 4 >5	0	23	27	12	0	>60 4 >5	1	10	20	7	0	>60 4 >5	2	4	14	2	2	>60 4 >5	2	4	14	2	2	>60 4 >5	0	9	9	9	0	>60 4 >5	0	9	9	9	0
NC 4 >10	0	23	27	12	0	NC 4 >10	1	10	14	5	0	NC 4 >10	2	4	14	2	2	NC 4 >10	2	4	14	2	2	NC 4 >10	0	9	9	9	0	NC 4 >10	0	9	9	9	0

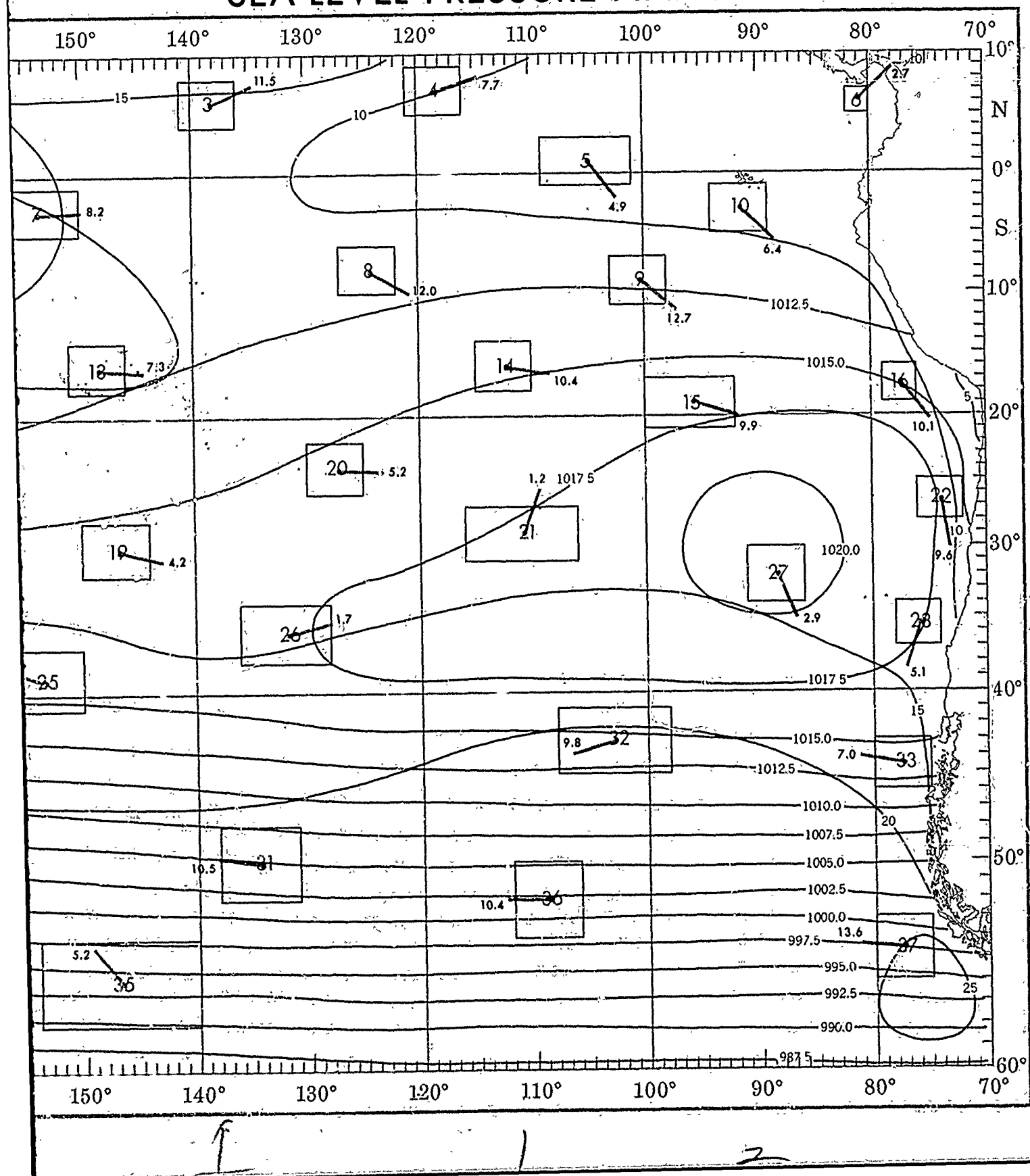
the objective compilation of available data for specified areas without regard to suspected biases. Tables (opposite page) are based on all available data subjectively adjusted where bias was evident.

APRIL

SEA LEVEL PRESS

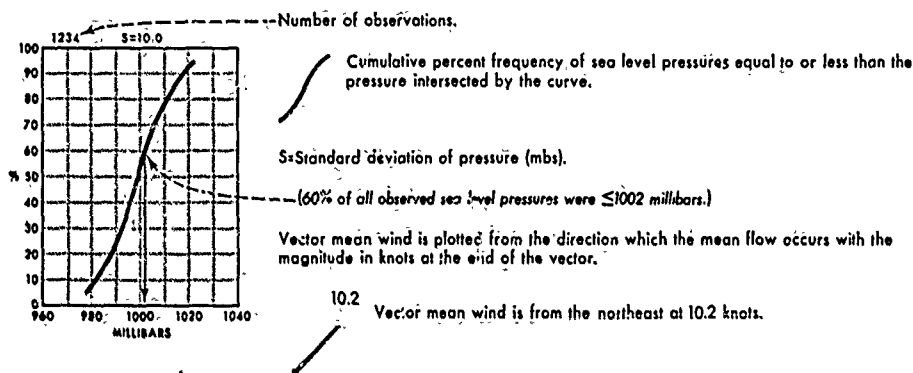


SEA LEVEL PRESSURE AND MEAN WIND



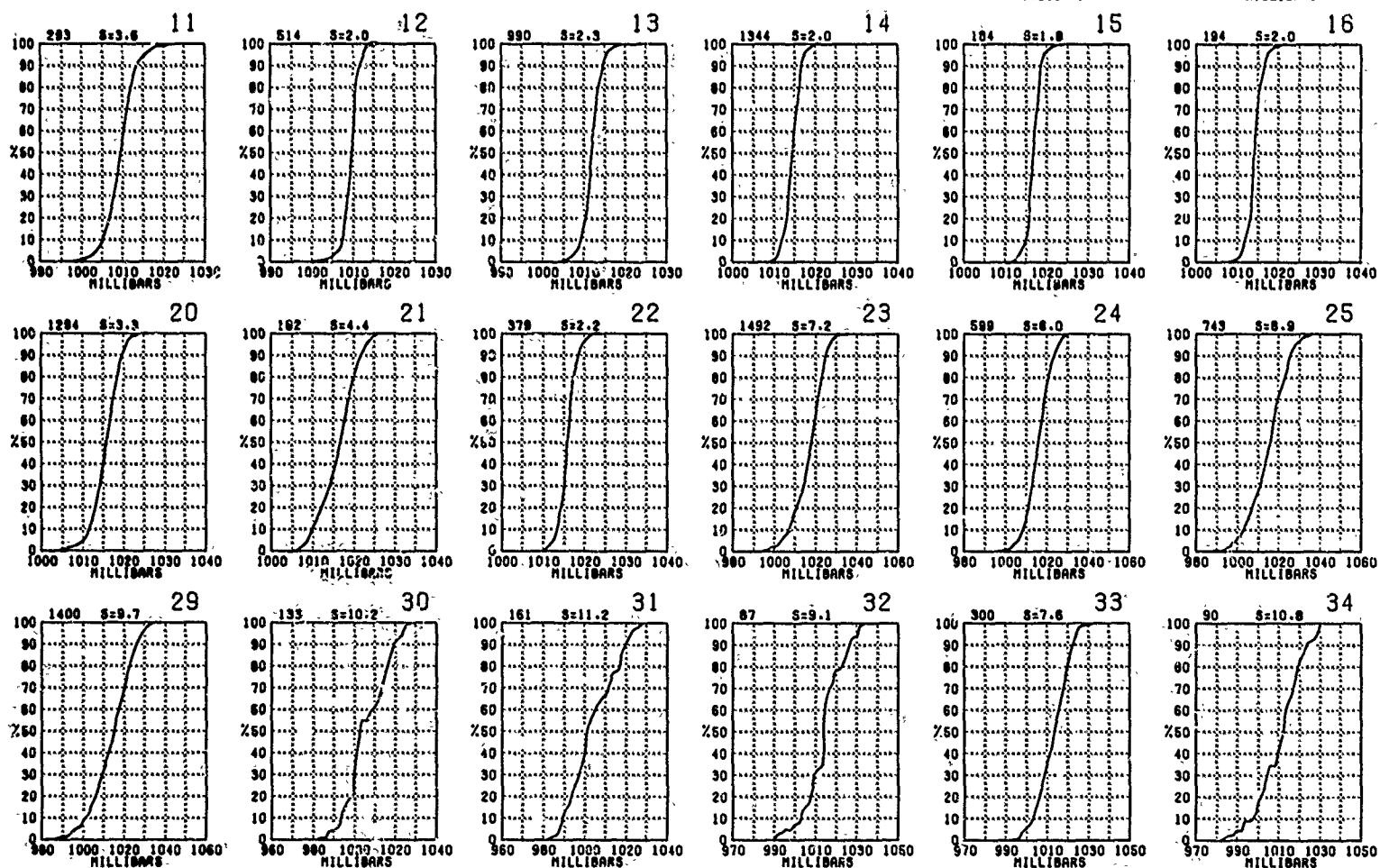
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without regard to isopleth analyses (opposite page) are based on all available data subjectively adjusted where

APRIL

pressures equal to or less than the

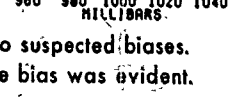
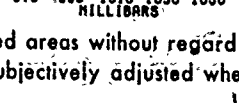
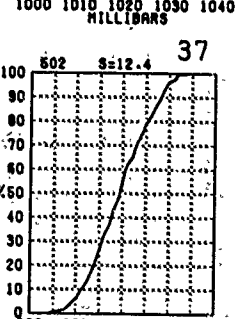
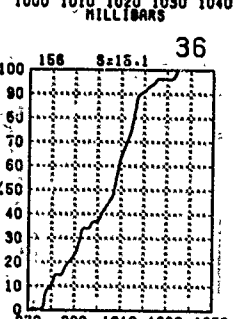
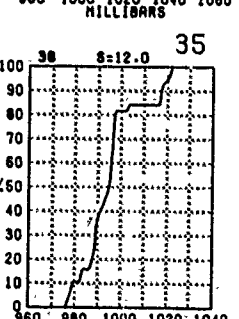
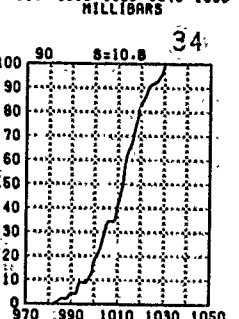
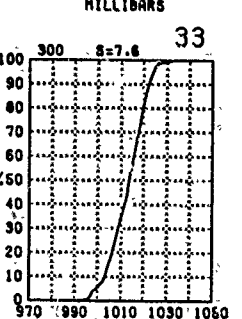
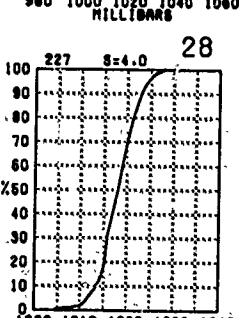
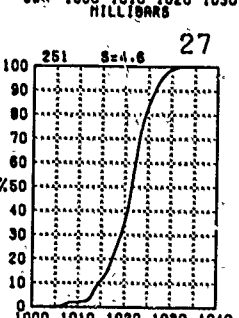
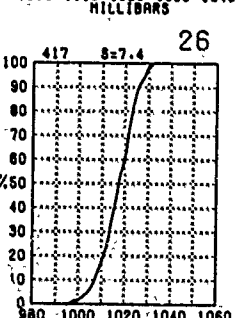
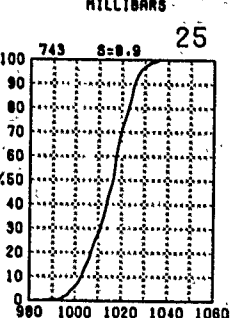
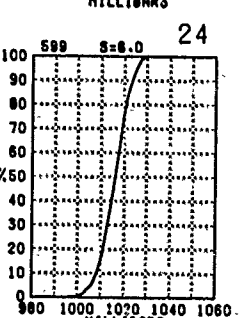
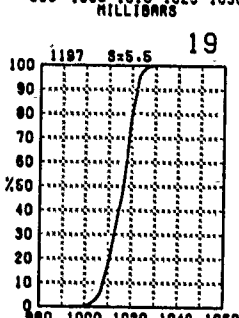
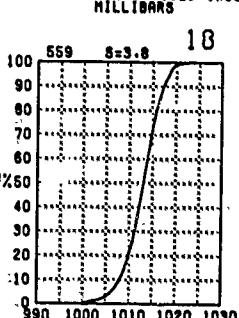
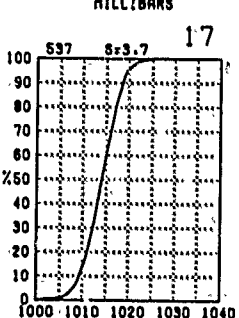
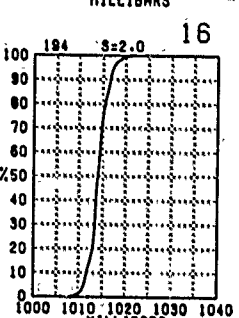
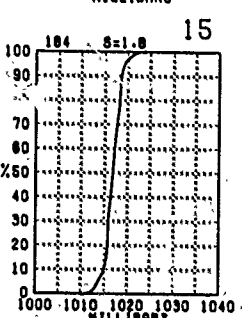
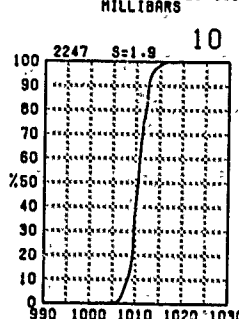
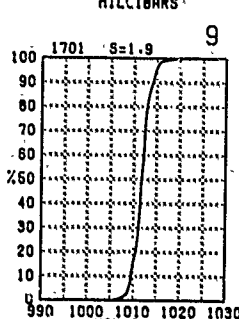
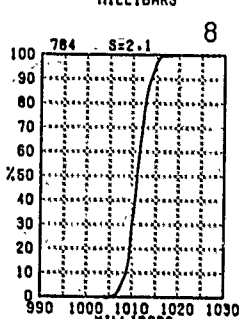
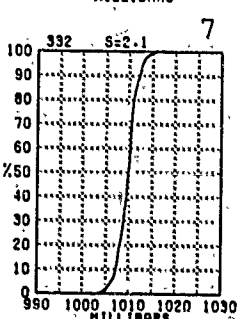
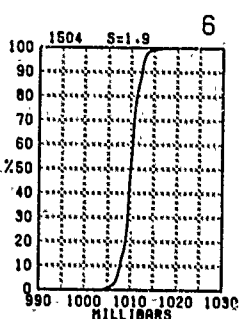
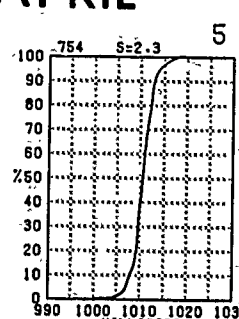
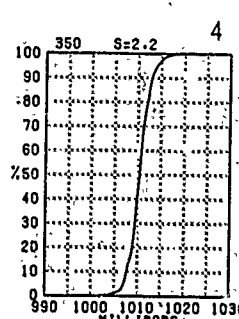
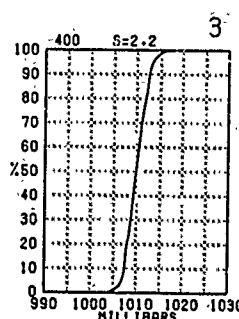
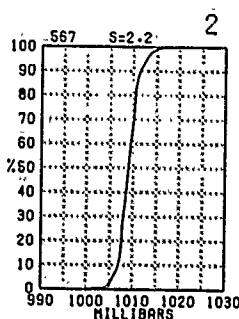
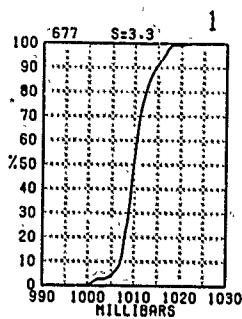
mean flow occurs with the

10.2 knots.

13

22

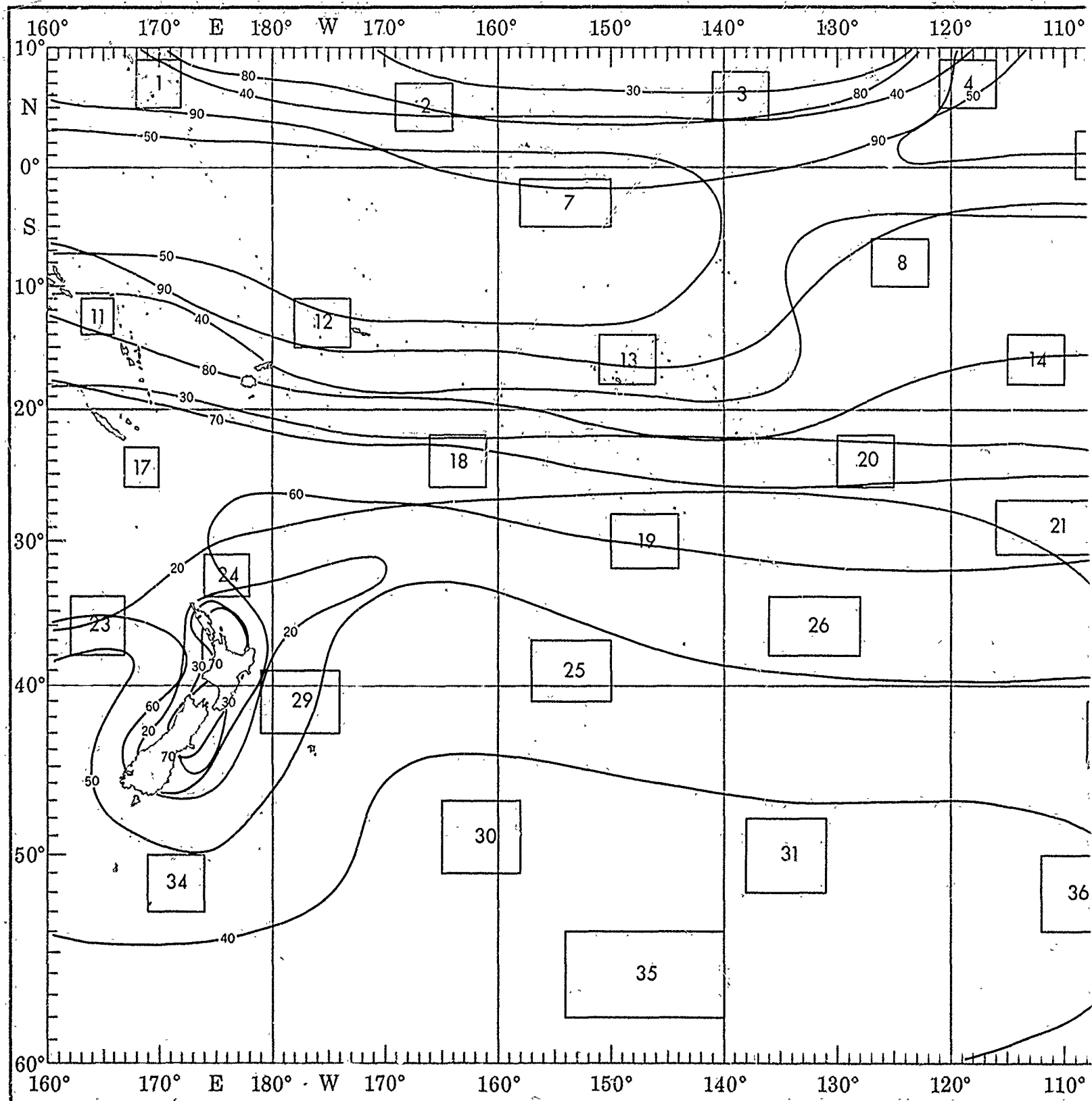
31



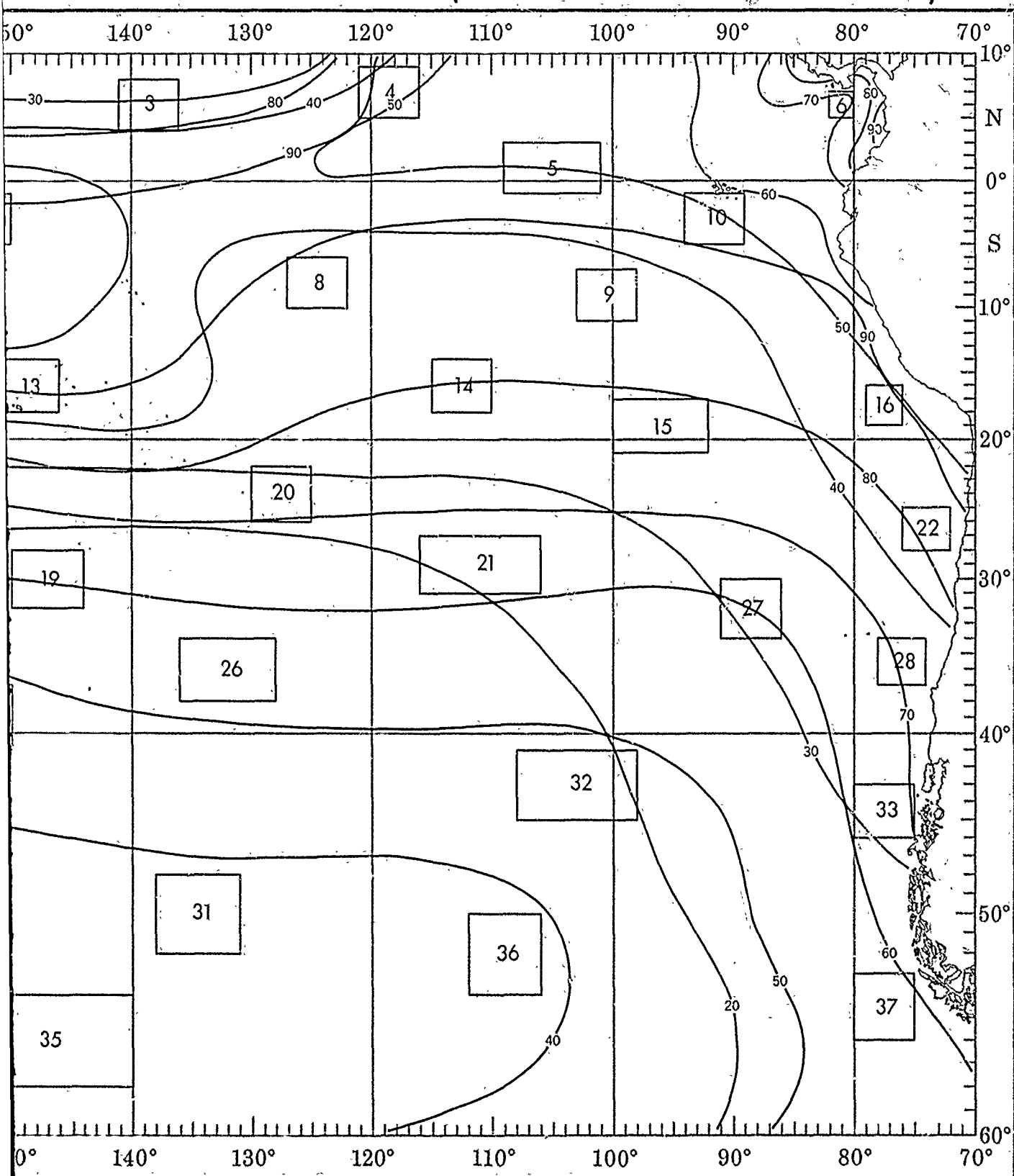
ent the objective compilation of available data for specified areas without regard to suspected biases.
analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

APRIL

WAVES (<1



WAVES (<1.5 AND <2.5 METERS)

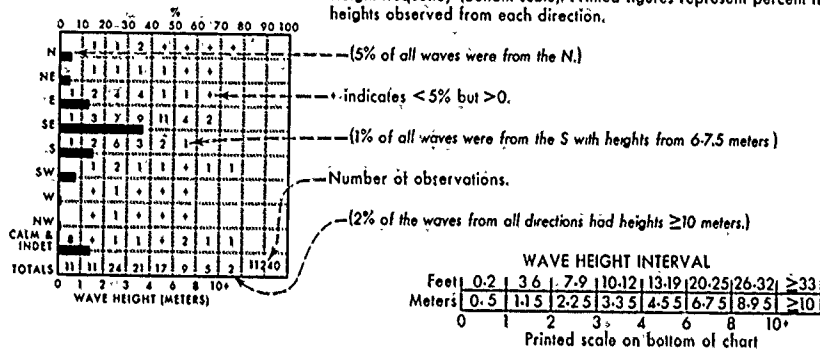


WAVE DIRECTION AND HEIGHT

Wave direction and height.

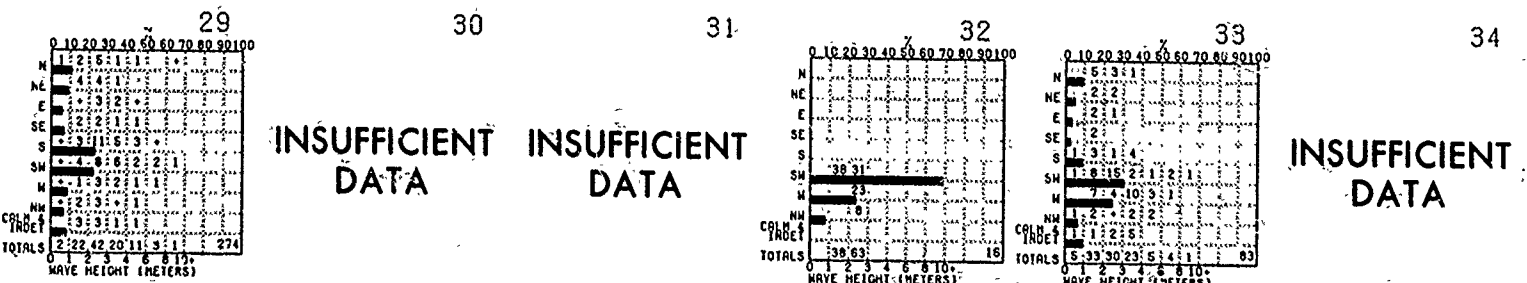
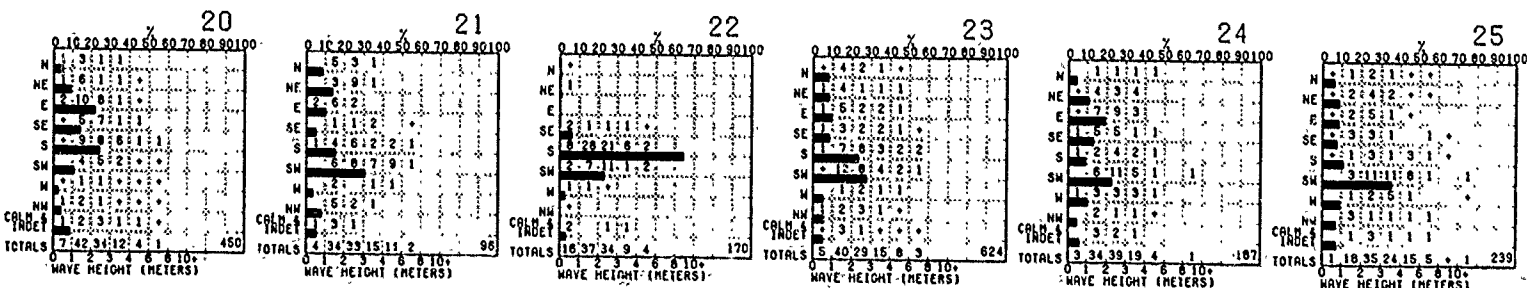
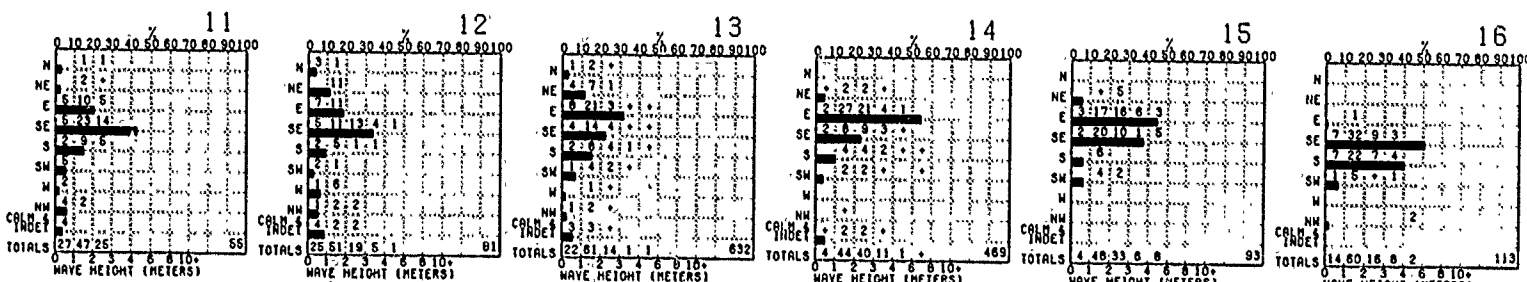
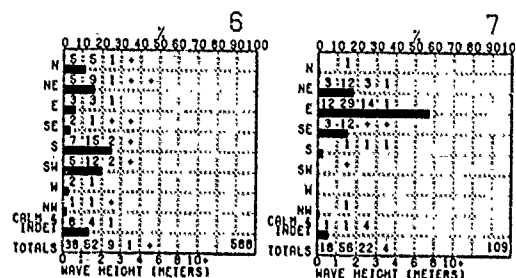
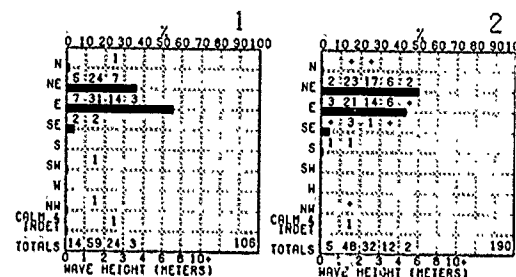
Direction frequency (top scale): Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale): Printed figures represent percent frequency of wave heights observed from each direction.



BLUE LINE - Percent frequency of wave height < 1.5 meters (5 feet)

RED LINE - Percent frequency of wave height < 2.5 meters (8 feet)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

ND HEIGHT

APRIL

ent frequency of waves from
esent percent frequency of wave

5 meters)

eters.)

25/26-32 >33

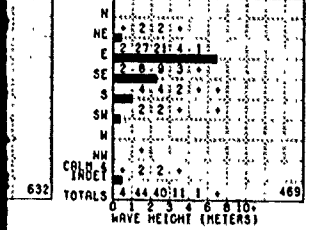
25/8.9.5 >10

8 10*

f chart

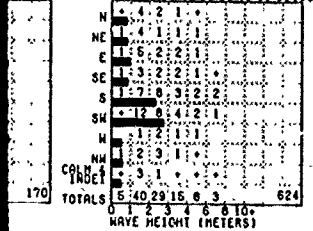
13

20 30 100



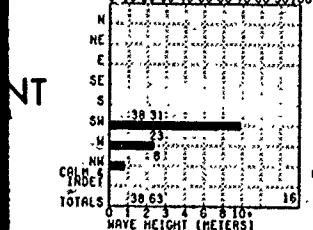
22

20 30 100



31

20 30 100



nt the objective compilation of available data for specified areas without regard to suspected biases.
lyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

4

INSUFFICIENT
DATA

INSUFFICIENT
DATA

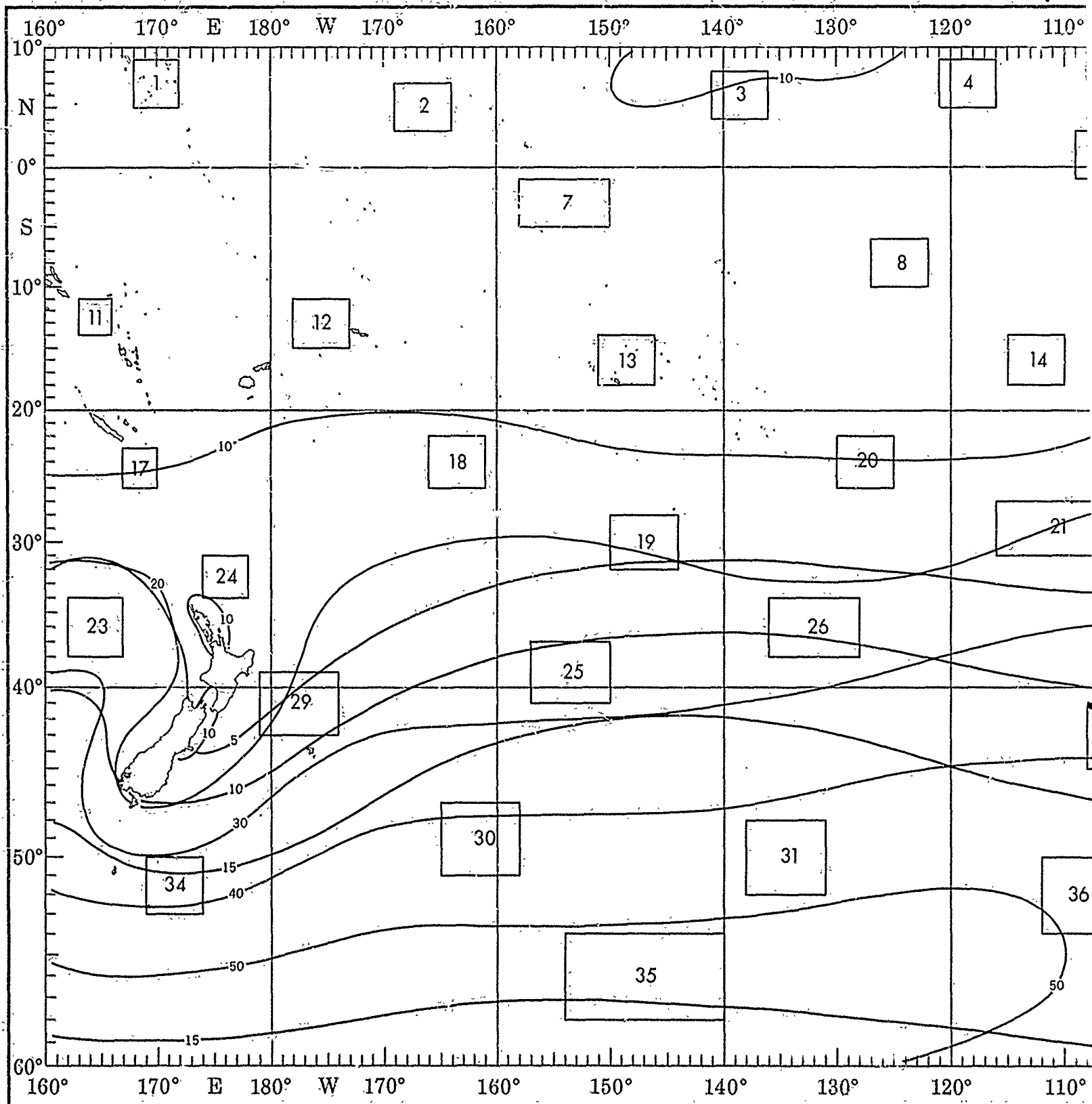
INSUFFICIENT
DATA

INSUFFICIENT
DATA

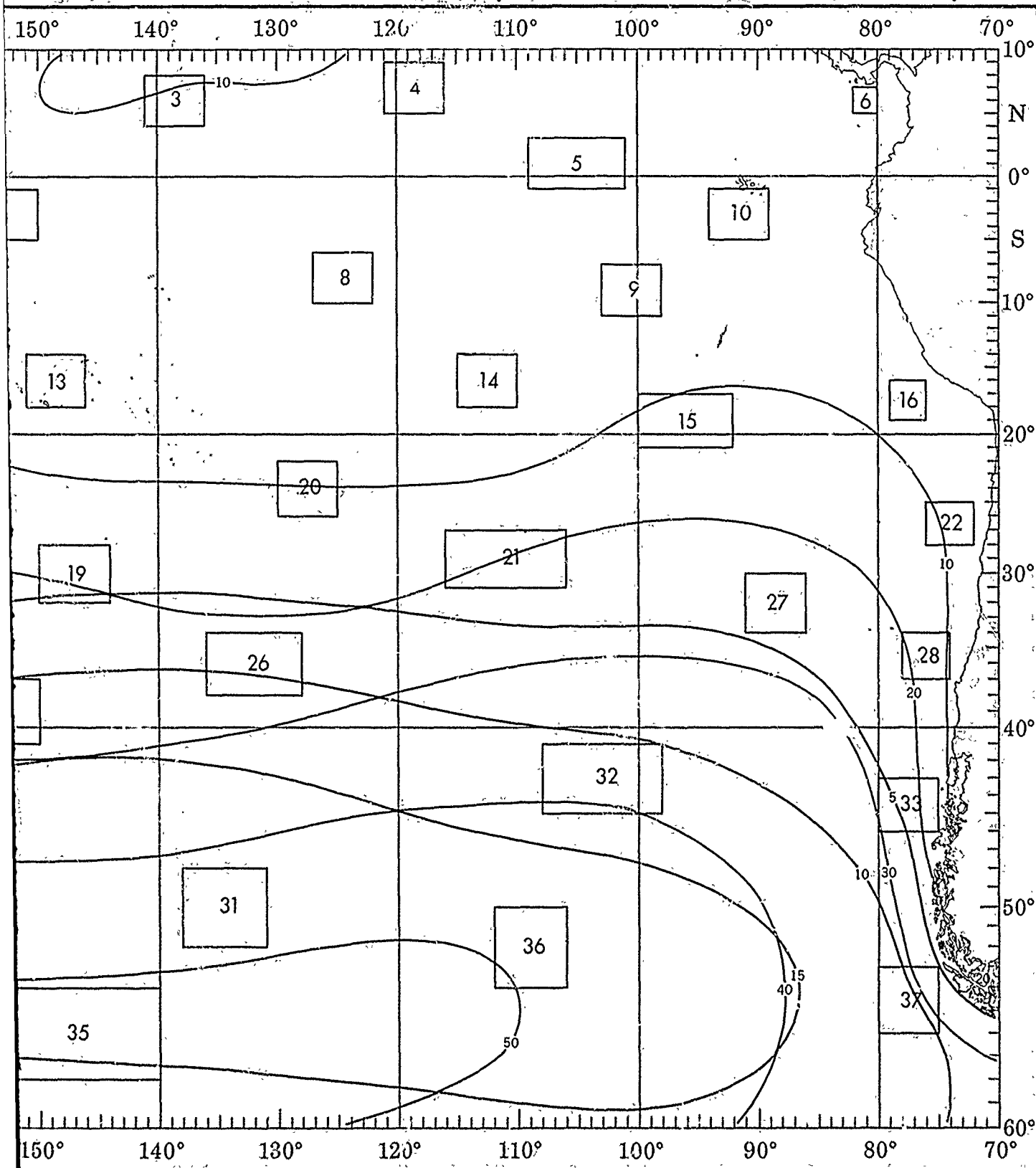
2

APRIL

WAVES (\geq)



WAVES (≥ 3.5 AND ≥ 6 METERS)



A 1 2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

PERIOD (Seconds)

[illegible]

—(2% of observed waves had a height of 1.5 meters and a period of 10-11 seconds)

—+ indicates $<5\%$ but >0 .

-Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE - Percent frequency of wave height ≥ 6 meters (20 feet)

MEASUREMENT (INCHES)	PERIOD (SECONDS)						
	0-1	1-2	2-3	3-4	4-5	5-6	6-7
0-1	24	0	0	0	0	0	4
1-1	25	15	5	2	0	0	0
2-2	4	16	4	0	2	0	0
3-3	0	0	0	0	0	0	0
4-4	0	0	0	0	0	0	0
5-5	0	0	0	0	0	0	0
6-6	0	0	0	0	0	0	0
7-7	0	0	0	0	0	0	0
8-8	0	0	0	0	0	0	0
9-9	0	0	0	0	0	0	0

	PERIOD (SECONDS)							
HEIGHT (INCHES)	-9	-8	-7	-6	-5	-4	-3	-2
0-0.5	13	5	1	0	0	0	0	0
1-1.5	21	11	8	1	0	1	6	
2-2.5	7	5	2	1	0	0	2	
3-3.5	0	4	1	0	0	0	0	
4-4.5	0	0	0	0	0	0	1	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
>9	0	0	0	0	0	0	0	

	PERIOD (SECONDS)							
HEIGHT (FEET)	-6	-5	-4	-3	-2	-1	0	+6
0-5	13	5	2	2	0	0	2	
1-5	19	18	9	2	4	+	6	
2-5	2	4	4	1	1	1	1	
3-5	0	+	+	+	0	+	0	
4-5	+	+	+	0	+	0	0	
5-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
>10	0	0	0	0	0	0	0	

WEIGHT INTERV	PERIOD (SECONDS)						
	6	7	8	10	11	12	140
0-1.5	3	1	0	0	0	0	1
1-1.5	14	17	7	1	1	1	2
2-2.5	9	15	9	3	1	1	3
3-3.5	1	4	2	2	+	1	+
4-5.5	0	+	1	+	0	0	0
6-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
≥10	0	0	0	0	0	0	0

WEIGHT (LBS)	PERIOD (SECONDS)						
	<6	7	8	10	12	15	180
0-5	4	0	1	0	0	0	1
1-1.5	23	13	8	0	2	1	0
2-2.5	9	8	12	3	0	0	0
3-3.5	1	2	2	1	0	0	0
4-4.5	2	1	0	3	0	0	1
6-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

WIND-UP (INCHES)	PERIOD (SECONDS)						
	0-5	6-10	11-15	16-20	21-25	26-30	31-40
0-1.5	10	0	0	0	0	0	5
1-1.5	30	15	7	3	0	2	4
2-2.5	3	4	5	3	0	1	0
3-3.5	1	4	1	2	0	0	1
4-5.5	0	0	2	0	0	0	0
6-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

[illegible]

		PERIOD (SECONDS)						
		6-	8-	10-	12-			
WEIGHT	INTERVAL	4-6	7	9	11	13	15	IND
0-0.5	4	0	0	0	0	0	0	1
1-1.5	16	5	4	3	2	0	3	
2-2.5	3	14	8	4	1	1	1	
3-3.5	1	5	4	1	2	1	0	
4-4.5	0	7	2	0	1	1	0	
5-5.5	0	0	0	1	0	1	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	
11-11.5	0	0	0	0	0	0	0	
12-12.5	0	0	0	0	0	0	0	
13-13.5	0	0	0	0	0	0	0	
14-14.5	0	0	0	0	0	0	0	
15-15.5	0	0	0	0	0	0	0	
16-16.5	0	0	0	0	0	0	0	
17-17.5	0	0	0	0	0	0	0	
18-18.5	0	0	0	0	0	0	0	
19-19.5	0	0	0	0	0	0	0	
20-20.5	0	0	0	0	0	0	0	
21-21.5	0	0	0	0	0	0	0	
22-22.5	0	0	0	0	0	0	0	
23-23.5	0	0	0	0	0	0	0	
24-24.5	0	0	0	0	0	0	0	
25-25.5	0	0	0	0	0	0	0	
26-26.5	0	0	0	0	0	0	0	
27-27.5	0	0	0	0	0	0	0	
28-28.5	0	0	0	0	0	0	0	
29-29.5	0	0	0	0	0	0	0	
30-30.5	0	0	0	0	0	0	0	
31-31.5	0	0	0	0	0	0	0	
32-32.5	0	0	0	0	0	0	0	
33-33.5	0	0	0	0	0	0	0	
34-34.5	0	0	0	0	0	0	0	
35-35.5	0	0	0	0	0	0	0	
36-36.5	0	0	0	0	0	0	0	
37-37.5	0	0	0	0	0	0	0	
38-38.5	0	0	0	0	0	0	0	
39-39.5	0	0	0	0	0	0	0	
40-40.5	0	0	0	0	0	0	0	
41-41.5	0	0	0	0	0	0	0	
42-42.5	0	0	0	0	0	0	0	
43-43.5	0	0	0	0	0	0	0	
44-44.5	0	0	0	0	0	0	0	
45-45.5	0	0	0	0	0	0	0	
46-46.5	0	0	0	0	0	0	0	
47-47.5	0	0	0	0	0	0	0	
48-48.5	0	0	0	0	0	0	0	
49-49.5	0	0	0	0	0	0	0	
50-50.5	0	0	0	0	0	0	0	
51-51.5	0	0	0	0	0	0	0	
52-52.5	0	0	0	0	0	0	0	
53-53.5	0	0	0	0	0	0	0	
54-54.5	0	0	0	0	0	0	0	
55-55.5	0	0	0	0	0	0	0	
56-56.5	0	0	0	0	0	0	0	
57-57.5	0	0	0	0	0	0	0	
58-58.5	0	0	0	0	0	0	0	
59-59.5	0	0	0	0	0	0	0	
60-60.5	0	0	0	0	0	0	0	
61-61.5	0	0	0	0	0	0	0	
62-62.5	0	0	0	0	0	0	0	
63-63.5	0	0	0	0	0	0	0	
64-64.5	0	0	0	0	0	0	0	
65-65.5	0	0	0	0	0	0	0	
66-66.5	0	0	0	0	0	0	0	
67-67.5	0	0	0	0	0	0	0	
68-68.5	0	0	0	0	0	0	0	
69-69.5	0	0	0	0	0	0	0	
70-70.5	0	0	0	0	0	0	0	
71-71.5	0	0	0	0	0	0	0	
72-72.5	0	0	0	0	0	0	0	
73-73.5	0	0	0	0	0	0	0	
74-74.5	0	0	0	0	0	0	0	
75-75.5	0	0	0	0	0	0	0	
76-76.5	0	0	0	0	0	0	0	
77-77.5	0	0	0	0	0	0	0	
78-78.5	0	0	0	0	0	0	0	
79-79.5	0	0	0	0	0	0	0	
80-80.5	0	0	0	0	0	0	0	
81-81.5	0	0	0	0	0	0	0	
82-82.5	0	0	0	0	0	0	0	
83-83.5	0	0	0	0	0	0	0	
84-84.5	0	0	0	0	0	0	0	
85-85.5	0	0	0	0	0	0	0	
86-86.5	0	0	0	0	0	0	0	
87-87.5	0	0	0	0	0	0	0	
88-88.5	0	0	0	0	0	0	0	
89-89.5	0	0	0	0	0	0	0	
90-90.5	0	0	0	0	0	0	0	
91-91.5	0	0	0	0	0	0	0	
92-92.5	0	0	0	0	0	0	0	
93-93.5	0	0	0	0	0	0	0	
94-94.5	0	0	0	0	0	0	0	
95-95.5	0	0	0	0	0	0	0	
96-96.5	0	0	0	0	0	0	0	
97-97.5	0	0	0	0	0	0	0	
98-98.5	0	0	0	0	0	0	0	
99-99.5	0	0	0	0	0	0	0	
100-100.5	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)							IND
	1-3	4-6	7-9	10-11	12-13	14-15	16-18	
0-0.5	10	1	0	0	0	0	6	
1-1.5	10	10	10	3	2	0	2	
2-2.5	3	10	10	6	1	1	3	
3-3.5	0	1	2	3	1	0	2	
4-4.5	0	1	3	0	0	0	0	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)							IND
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	
0-0.5	4	1	0	+	0	0	+	
1-1.5	13	13	7	2	1	1	2	
2-2.5	4	9	9	4	2	+	+	
3-3.5	1	4	5	3	1	1	+	
4-4.5	1	2	3	2	1	+	+	
5-5.5	0	+	+	1	+	+	+	
6-6.5	0	0	0	0	0	0	0	
>10	0	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)						
	<6	6-7	8-9	10-11	12-13	>13	IND
0-0.5	3	1	0	0	0	0	0
1-1.5	12	14	4	0	1	0	3
2-2.5	4	15	9	4	2	2	4
3-3.5	2	10	5	1	1	0	0
4-4.5	1	1	2	1	1	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	1	0	0	0	0
7-7.5	0	0	1	0	0	0	0
>10	0	0	0	0	0	0	0

MECHANISM (NATURAL)	PERIOD (SECONDS)							IND
	<6	6-7	8-9	10-11	12-13	>13		
0-0.5	2	0	0	0	0	0	0	
1-1.5	5	3	6	0	1	0	2	
2-2.5	3	9	9	6	3	1	4	
3-3.5	+	4	10	5	3	0	1	
4-5.5	+	4	3	3	3	0	1	
6-7.5	0	+	2	1	1	0	1	
8-9.5	0	0	+	0	0	0	0	
>10	0	0	0	+	+	0	0	

		PERIOD (SECONDS)							29
ME (MONT)	(INTRA)	0- .5	.5- 1	1- 2	2- 5	5- 10	10- 15	15- 20	IND
0- .5		3	0	0	0	0	0	0	
1-1.5		5	9	3	1	0	0	4	
2-2.5		2	20	9	6	1	+	4	
3-3.5		1	4	5	6	1	0	2	
4-5		1	3	3	2	+	+	1	
6-7.5		0	1	1	1	0	+	0	
8-9.5		0	1	+	0	0	0	0	
≥10		0	0	0	0	0	0	0	

INSUFFICIENT DATA

INSUFFICIENT DATA

32

HEIGHT (MTRS)	PERIOD (SECONDS)						
	<6	6-7	8-9	10-11	12-13	>13	IND
0-0.5	0	0	0	0	0	0	0
1-1.5	0	0	0	13	25	0	0
2-2.5	0	0	6	13	44	0	0
3-3.5	0	0	0	0	0	0	0
4-5.5	0	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

INSUFFICIENT
DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

HEIGHT

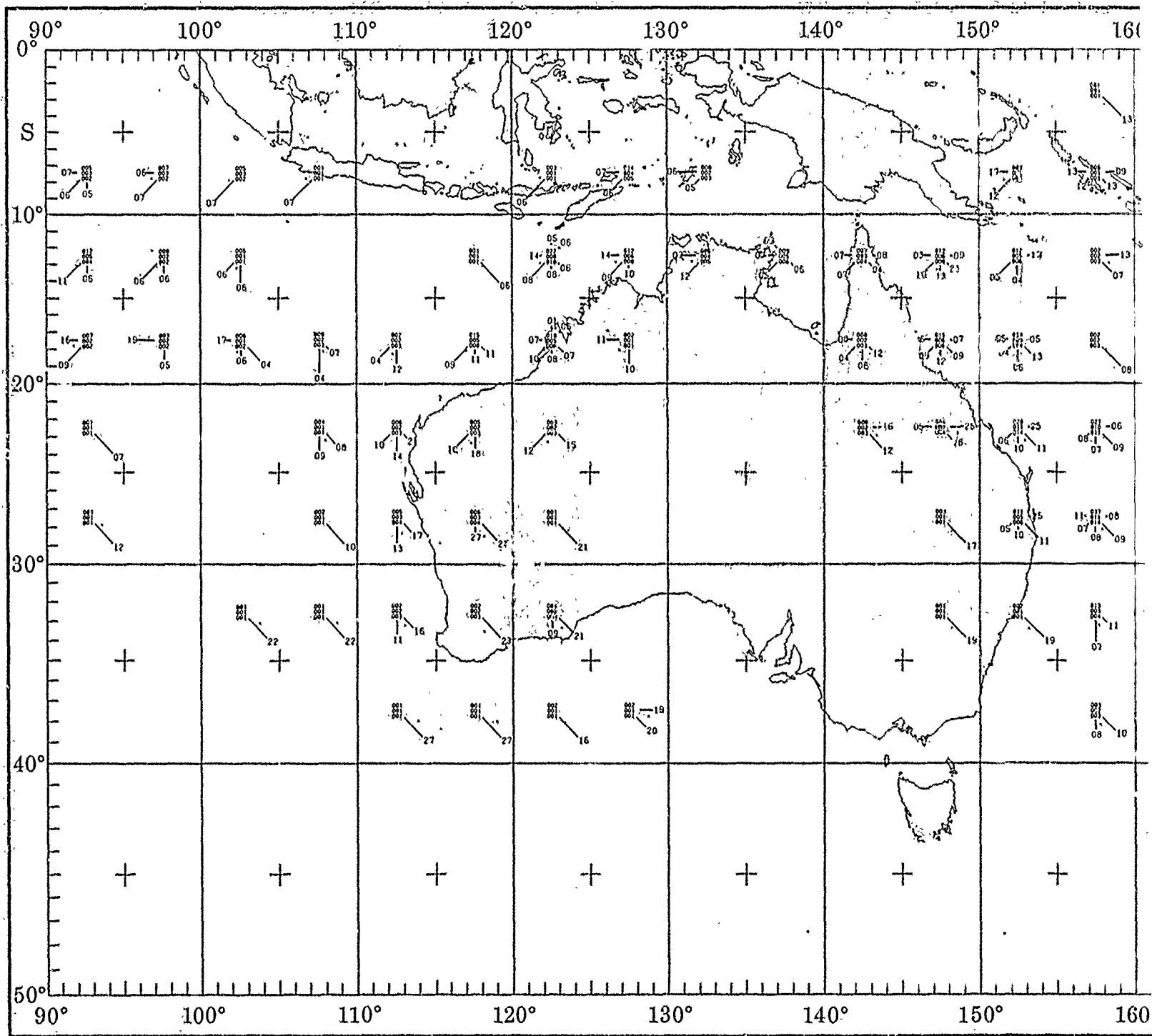
APRIL

0-11 seconds.)

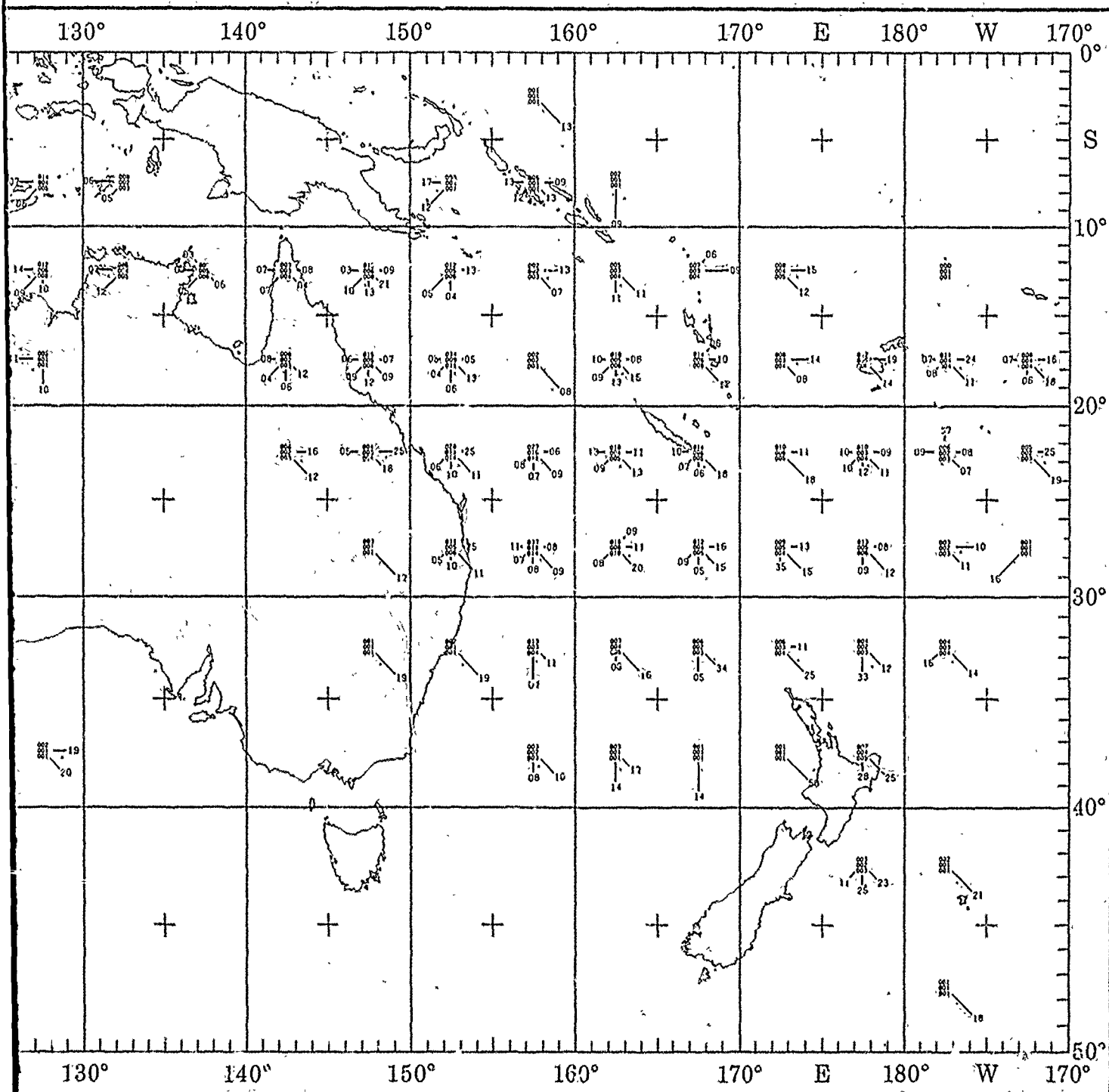
when both are reported. If both.

1												2												3												4												5											
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)											
HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-
0-5	12	4	0	0	0	0	0	0	0	0	0	0-5	4	1	0	0	0	0	0	0	0	0	0	0-5	5	1	2	0	0	0	0	0	0	0	0-5	9	3	0	0	0	0	0	0	0	0	0	0-5	14	4	2	1	0	0	0	0	0	0	0	
1-1.5	31	20	6	1	0	0	0	0	0	0	0	1-1.5	25	15	4	1	3	0	0	0	0	0	0	1-1.5	12	22	10	1	0	0	0	0	0	0	1-1.5	20	16	10	1	0	0	0	0	0	0	0	1-1.5	11	13	12	4	3	0	0	0	0	0	0	
2-2.5	7	11	4	0	1	0	0	0	0	0	0	2-2.5	3	16	11	3	0	0	0	0	0	0	0	2-2.5	5	13	11	2	0	0	0	0	0	1	2-2.5	5	10	7	1	3	0	0	0	0	0	0	2-2.5	3	5	6	2	1	0	0	0	0	0	0	
3-3.5	0	2	0	0	0	0	1	0	0	0	0	3-3.5	1	6	4	0	1	1	0	0	0	0	0	3-3.5	1	2	4	2	0	1	2	0	0	0	3-3.5	0	2	1	2	0	0	0	0	0	0	0	3-3.5	0	0	1	1	1	0	0	0	0	0	0	
4-5.5	0	0	0	0	0	0	0	0	0	0	0	4-5.5	0	1	1	1	0	0	0	0	0	0	0	4-5.5	0	1	0	0	0	0	0	0	0	0	4-5.5	0	1	0	1	0	0	0	0	0	0	0	4-5.5	0	0	0	0	0	0	0	0	0	0	0	
6-7.5	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0	
8-9.5	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0				
108												190												185												153												456											
6												7												8												9												10											
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)											
HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-
0-5	26	4	1	2	0	0	0	0	0	0	0	0-5	17	1	0	0	0	0	0	0	0	0	0	0-5	8	0	0	0	0	0	0	0	0	0	0-5	1	0	0	0	0	0	0	0	0	0	0	0-5	11	2	1	0	0	0	0	0	0	0	0	
1-1.5	19	11	7	2	3	1	5	0	0	0	0	1-1.5	14	30	5	3	0	0	0	0	0	0	0	1-1.5	20	15	4	2	2	0	0	0	0	0	1-1.5	17	15	4	1	1	1	1	1	1	1	1	1	1-1.5	20	20	8	3	2	2	3	0	0	0	0
2-2.5	2	3	1	1	0	0	0	0	0	0	0	2-2.5	3	9	6	0	1	0	0	0	0	0	0	2-2.5	5	12	7	4	2	0	0	0	0	0	2-2.5	9	22	13	2	0	0	0	0	0	0	0	0	2-2.5	5	9	6	2	1	1	1	0	0	0	0
3-3.5	0	0	0	0	0	0	0	0	0	0	0	3-3.5	1	0	3	0	0	0	0	0	0	0	0	3-3.5	0	2	3	0	0	0	0	0	0	0	3-3.5	0	3	3	2	0	0	0	0	0	0	0	0	3-3.5	0	1	0	0	0	0	0	0	0	0	0
4-5.5	0	0	0	0	0	0	0	0	0	0	0	4-5.5	0	0	0	0	0	0	0	0	0	0	0	4-5.5	0	0	0	0	0	0	0	0	0	0	4-5.5	0	1	0	0	0	0	0	0	0	0	0	0	4-5.5	0	0	0	0	0	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0	0	6-7.5	0	0	0	0	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0	0	8-9.5	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0				
636												113												424												566												772											
13												14												15												16												17											
PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)												PERIOD (SECONDS)											
HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-	HEIGHT	ENTR	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-
0-5	4	0	1	0	0	0	0	0	0	0	0	0-5	10	0	0	0	0	0	0	0	0	0	0	0-5	6	1	0	0	0	0	0	0	0	0	0-5	7	2	0	0	0	0	0	0	0	0	0	0-5	5	0	0	0	0	0	0	0	0	0	0	
1-1.5	23	13	8	0	2	1	0	0	0	0	0	1-1.5	30	15	7	3	0	2	4	0	0	0	0	1-1.5	11	11	2	1	1	0	0	0	0	0	1-1.																								

APRIL



TROPICAL CYCLONE

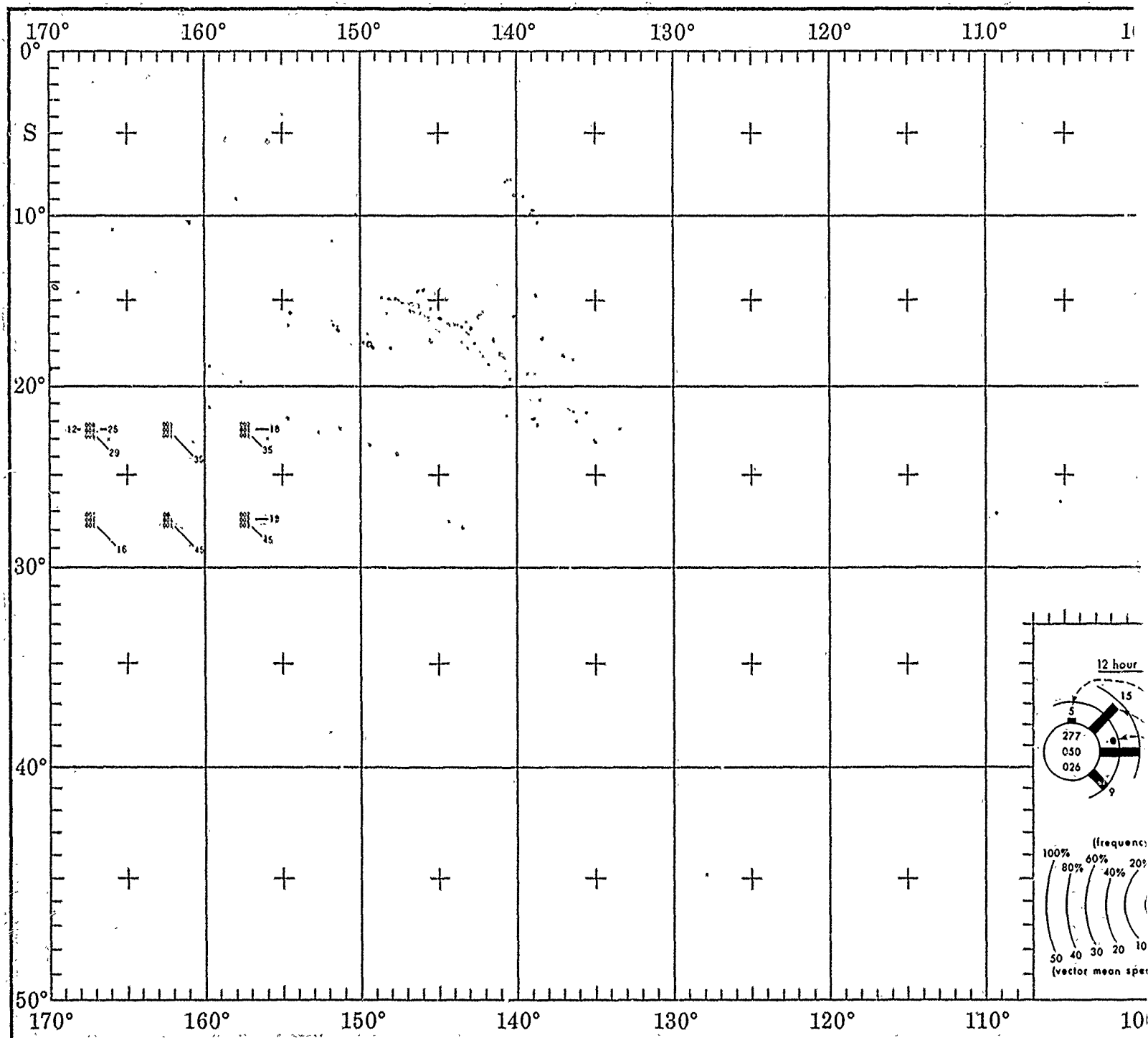


11

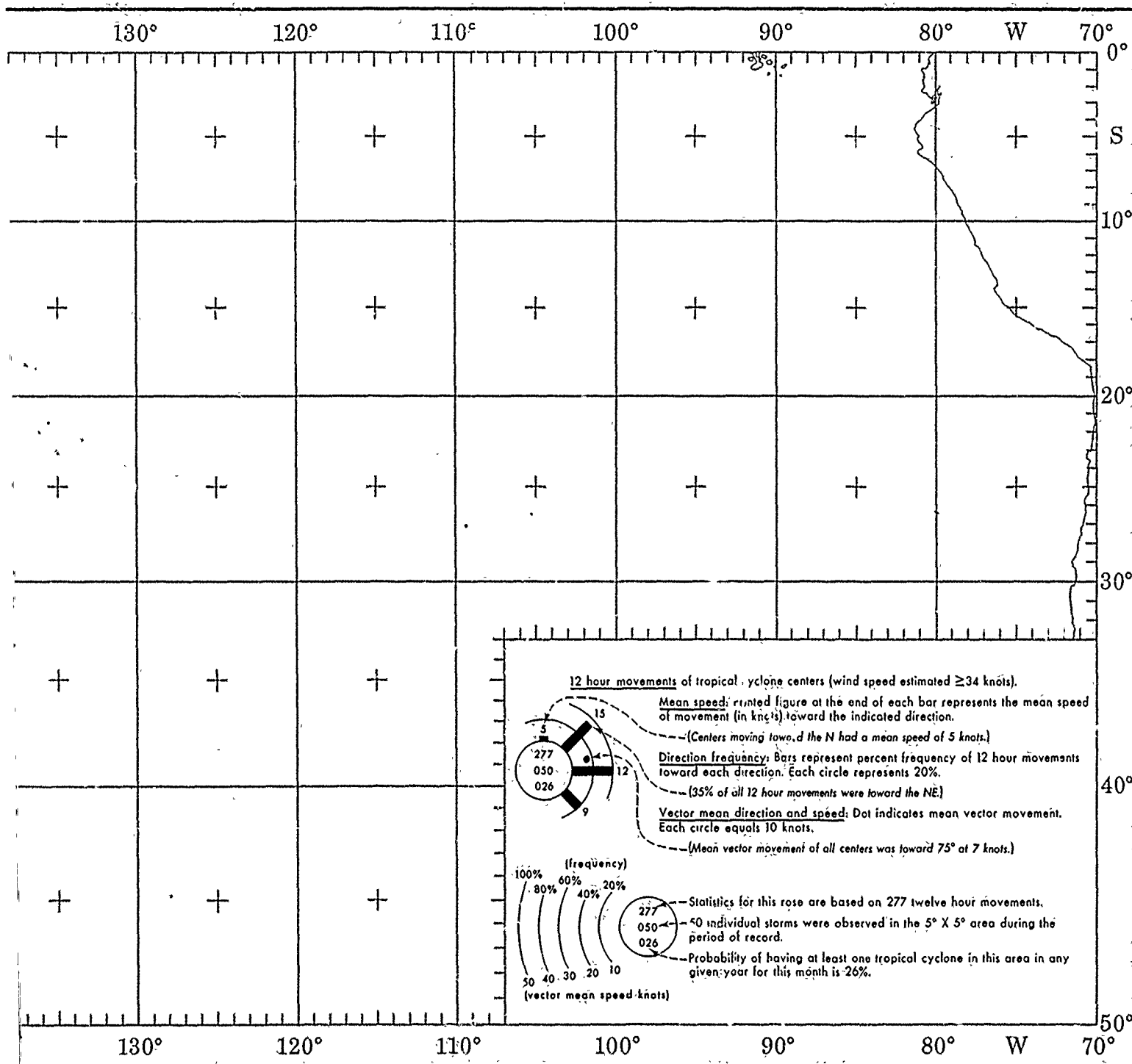
1

2

TROPICAL CYCLONE



APRIL

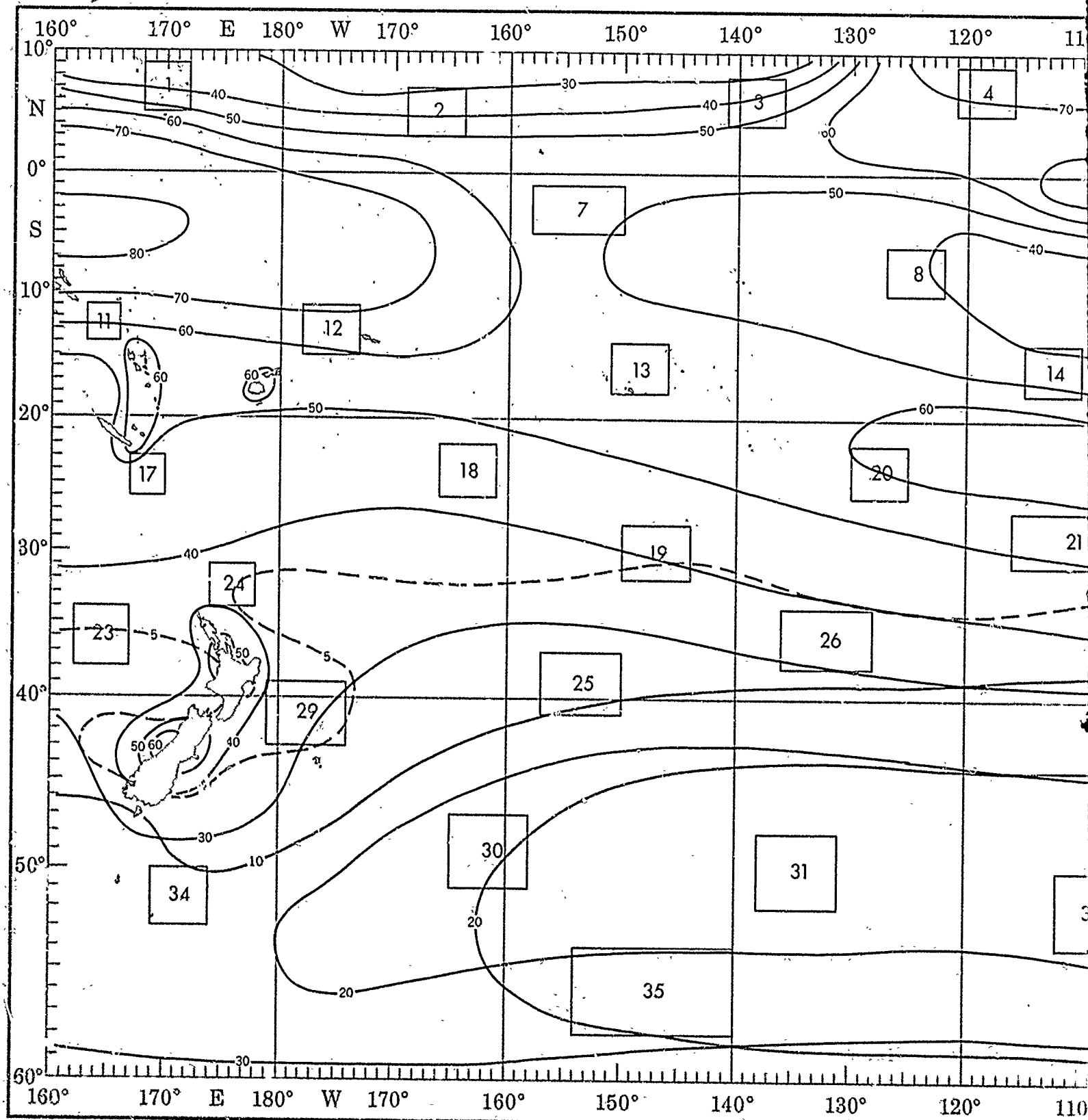


1

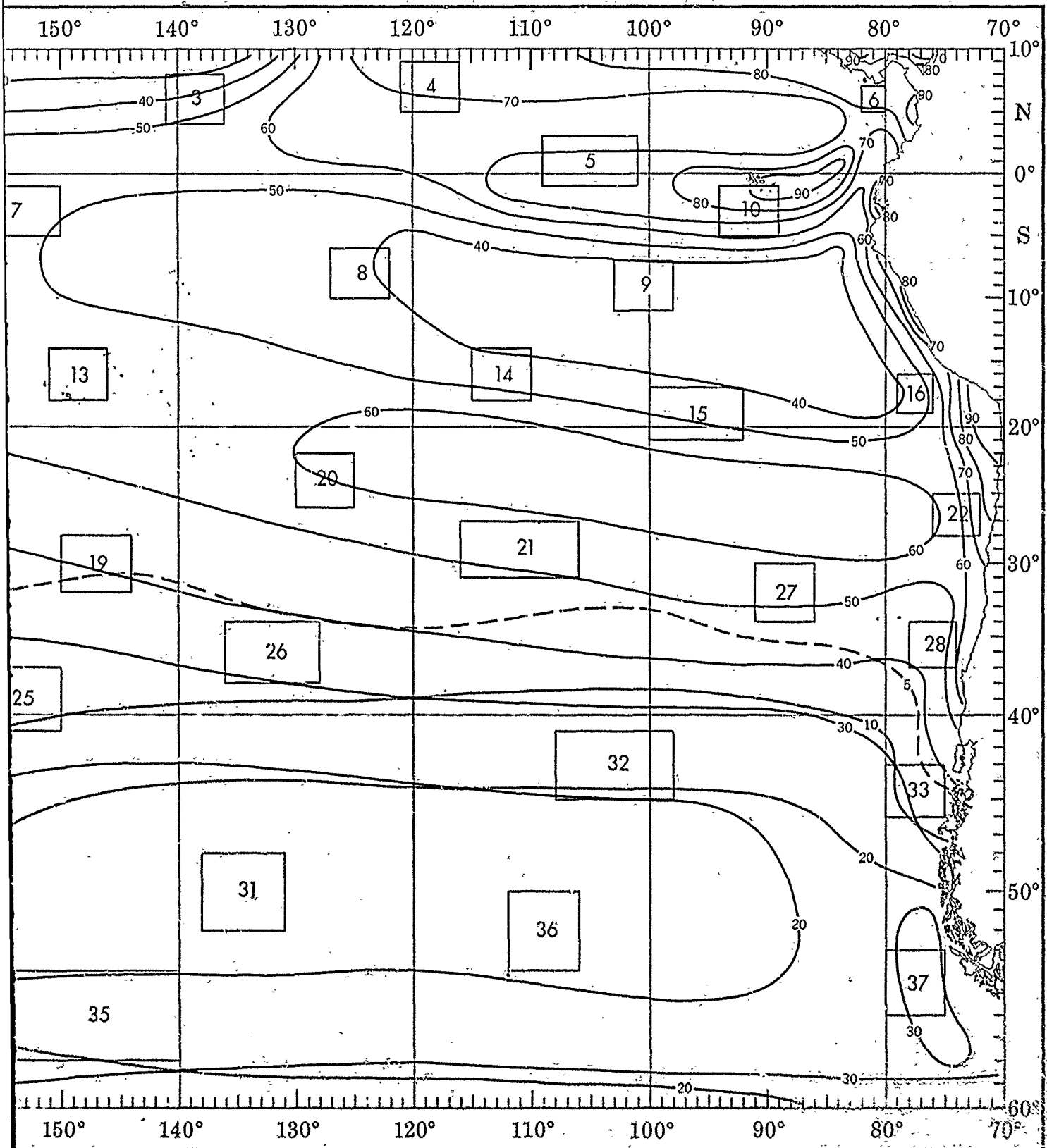
1

2

MAY

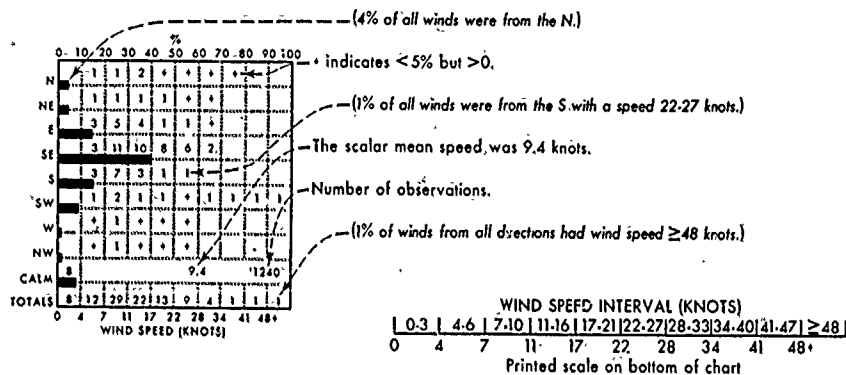


SURFACE WINDS



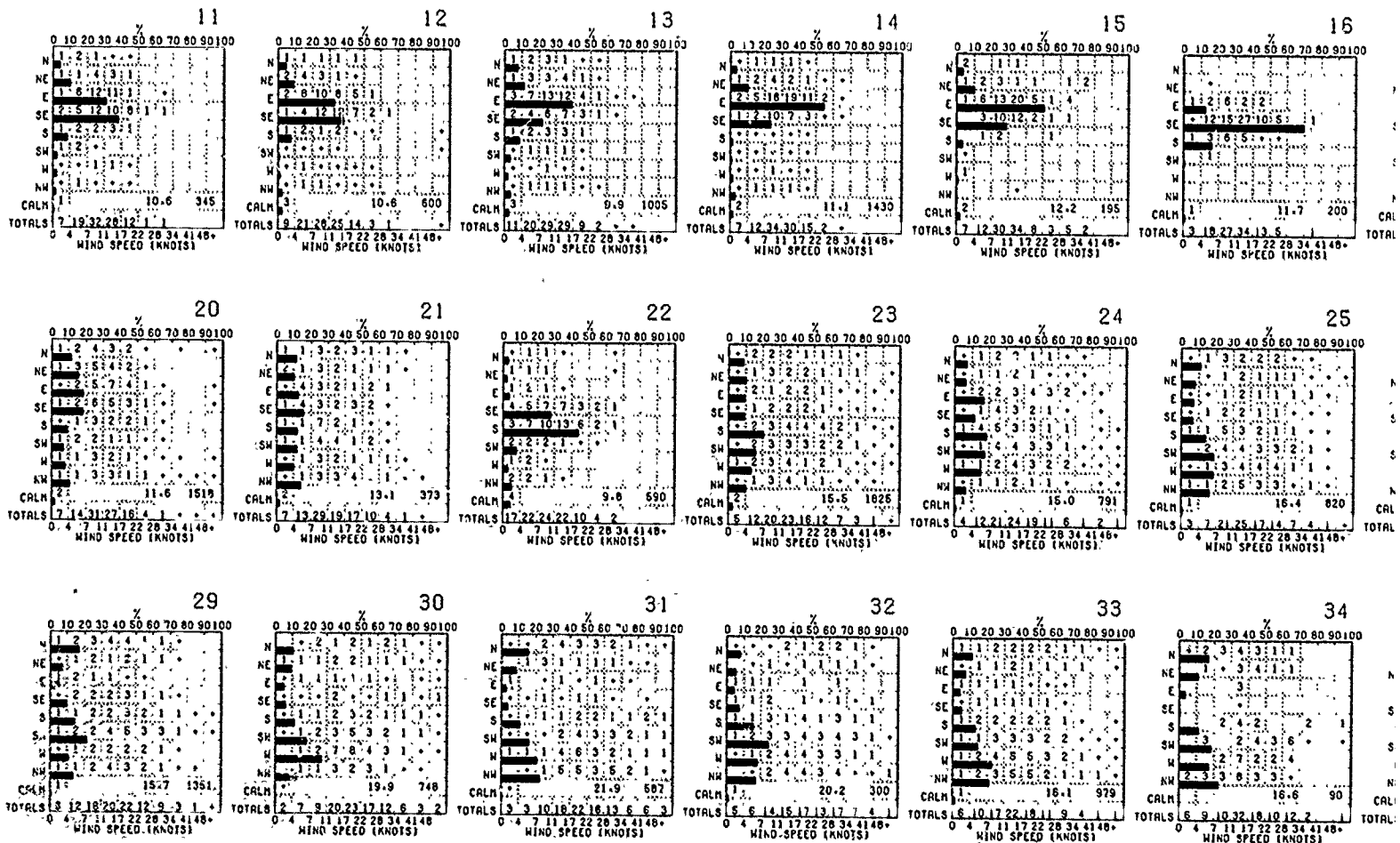
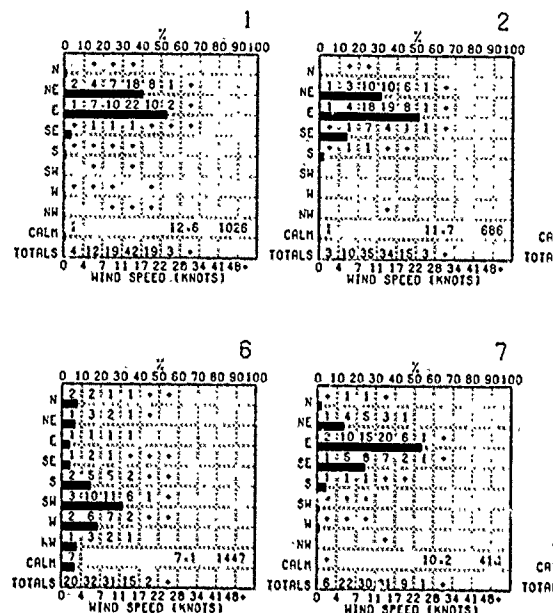
WIND DIRECTION AND SPEED

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

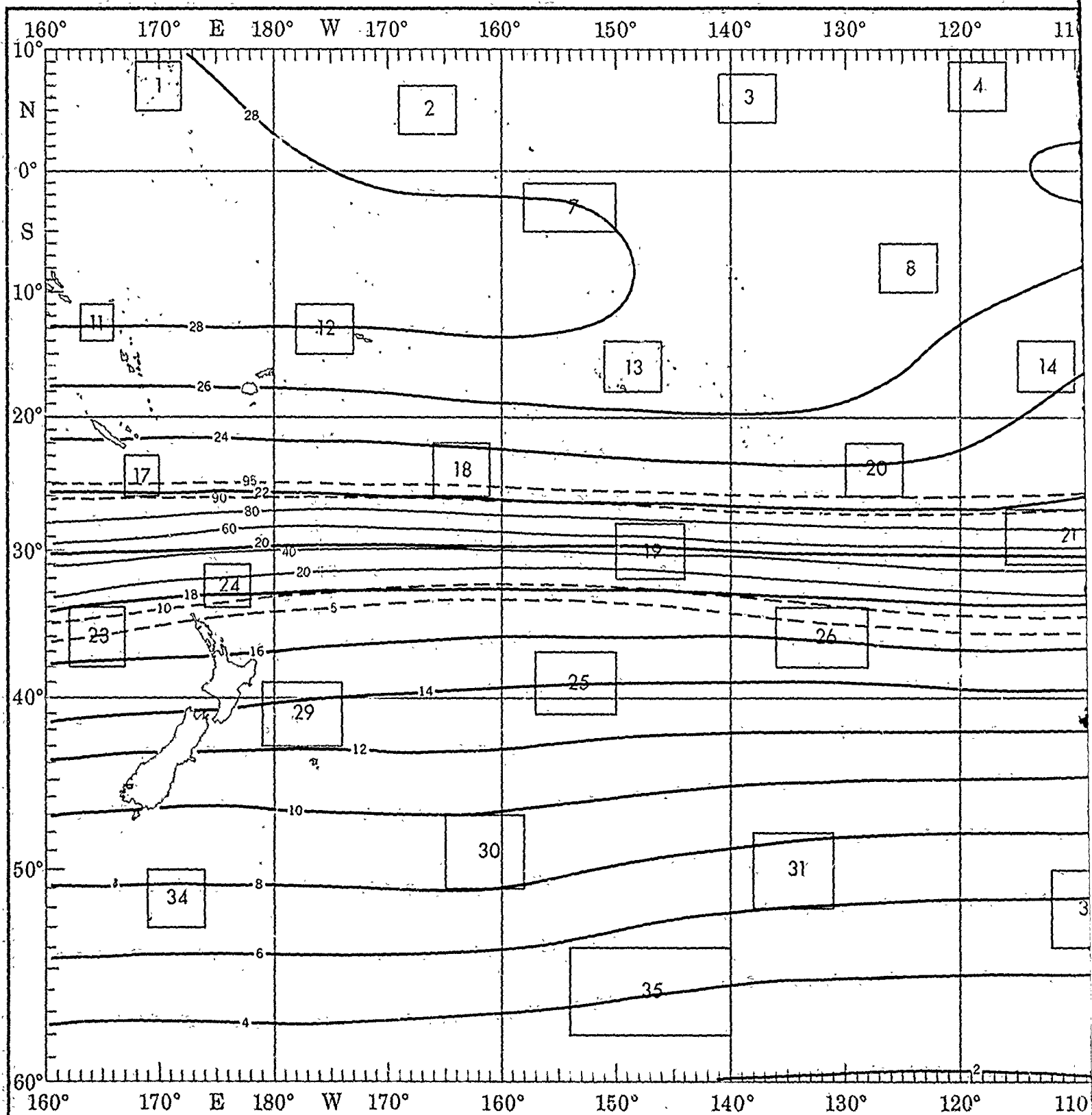
RED LINE - Percent frequency of wind speed ≥ 34 knots



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

MAY

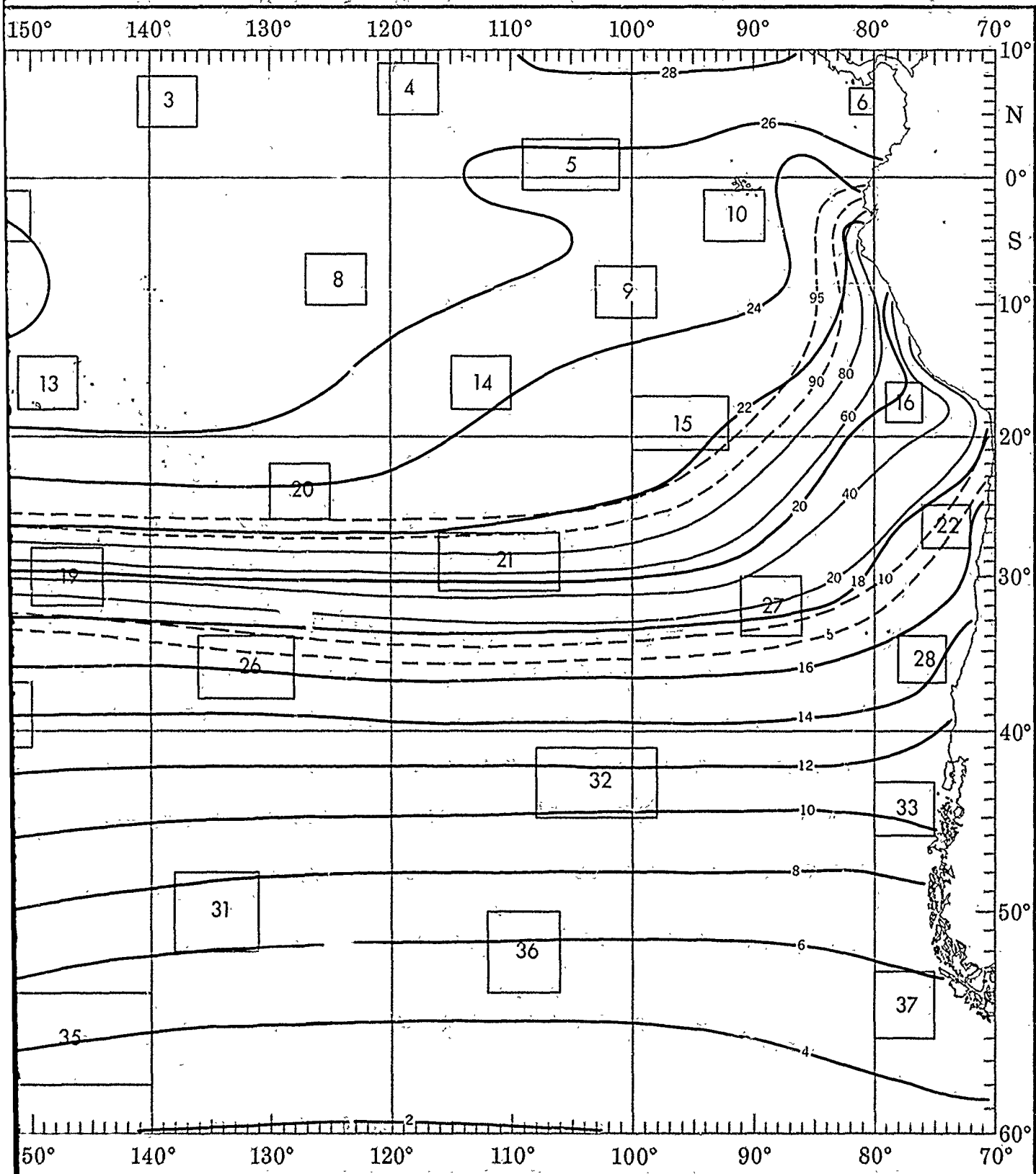
SURFA



L

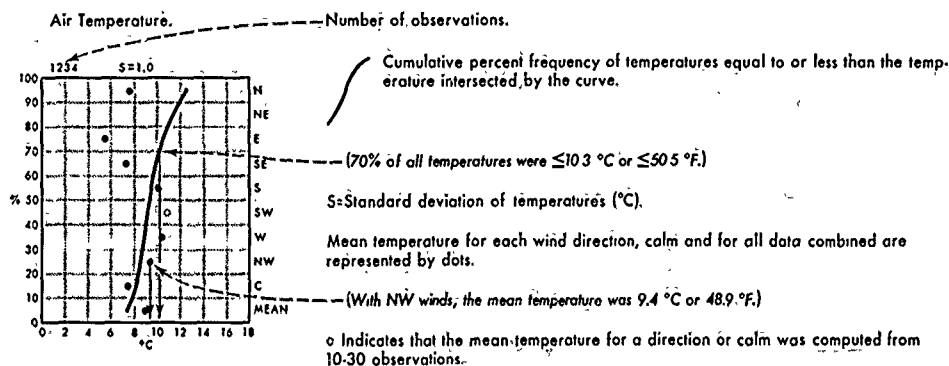
1

SURFACE AIR TEMPERATURE



1 1 2

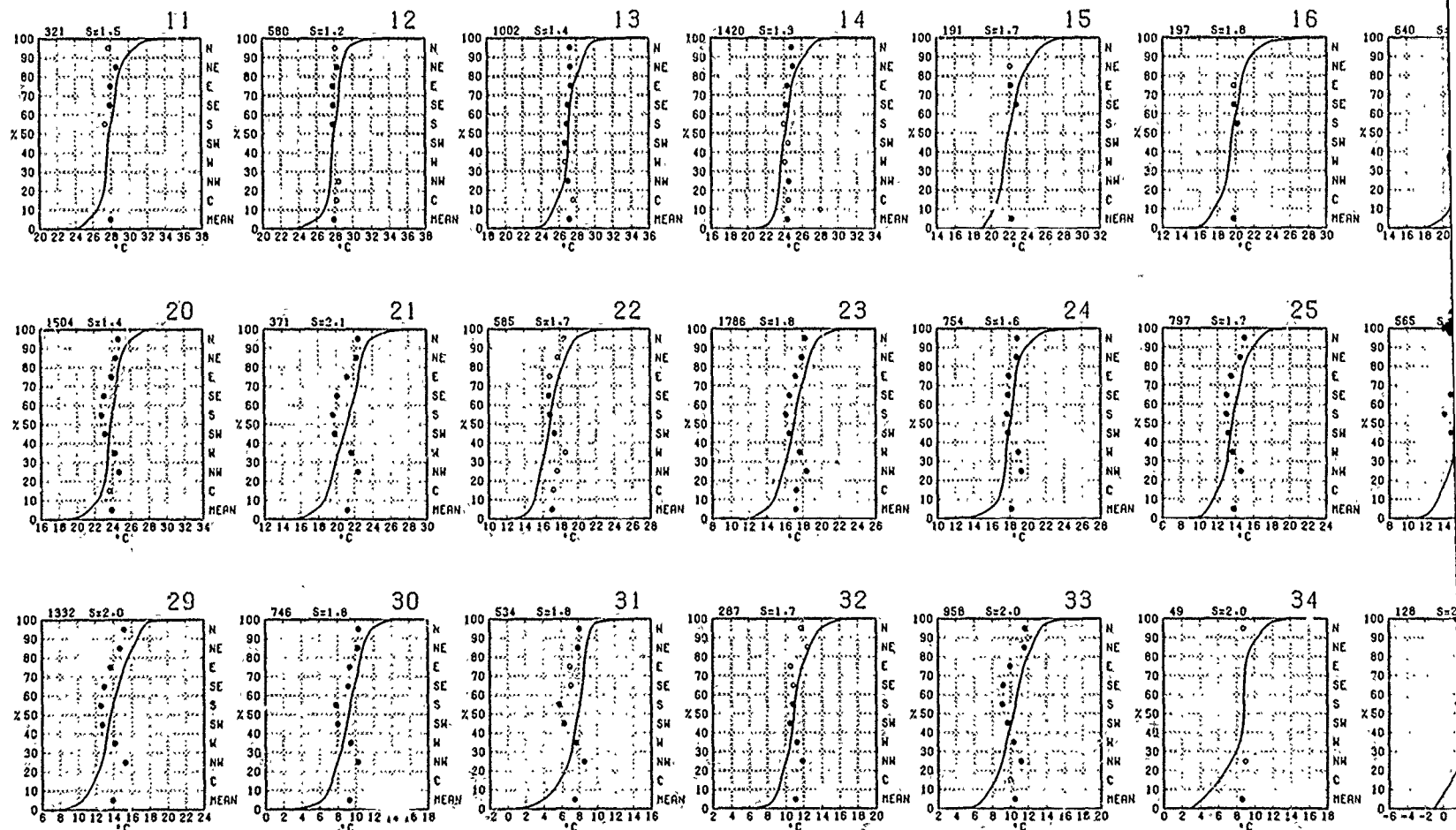
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^\circ\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^\circ\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to suspect. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias was

URE

MAY

or less than the temp.

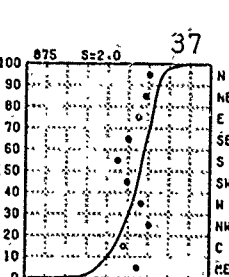
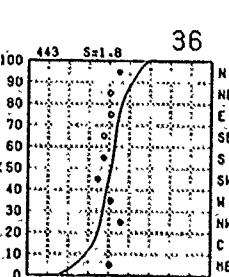
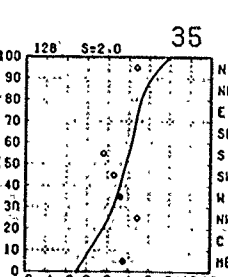
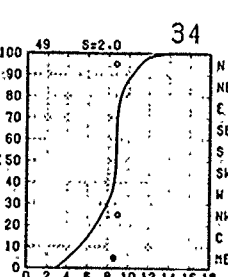
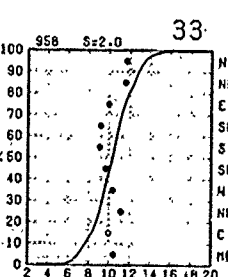
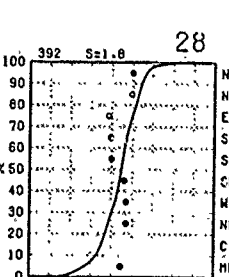
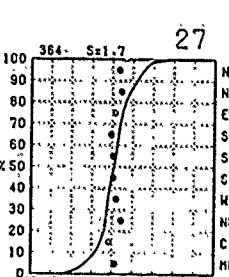
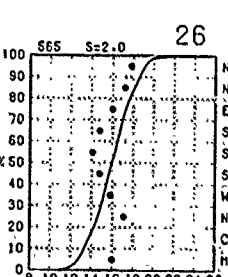
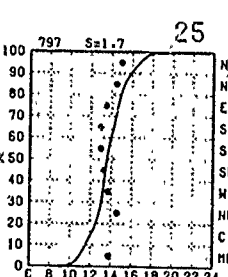
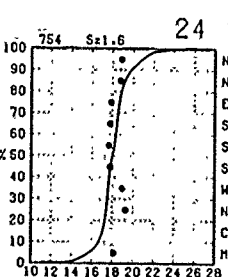
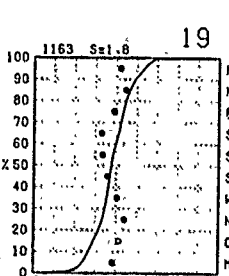
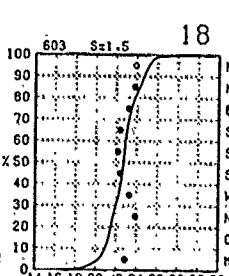
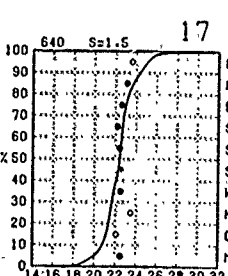
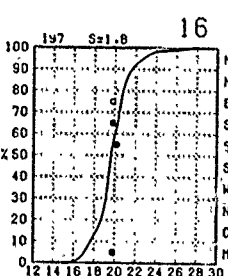
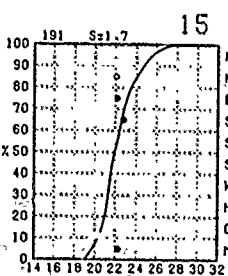
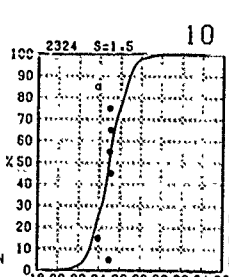
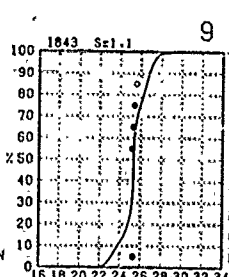
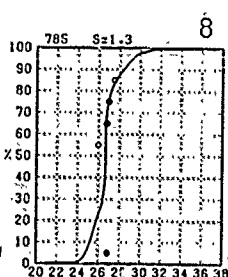
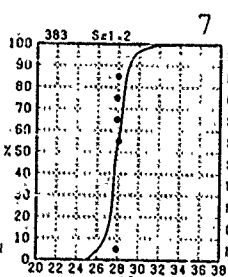
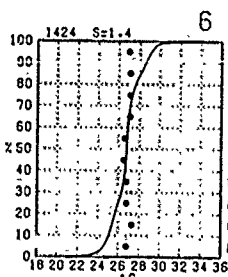
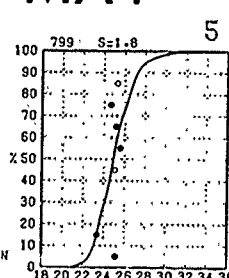
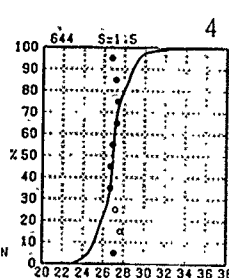
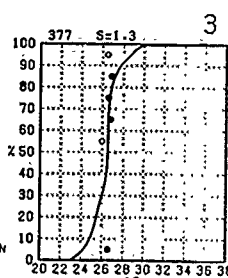
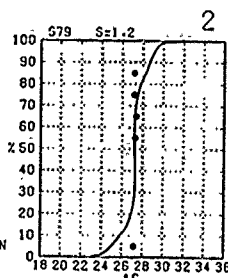
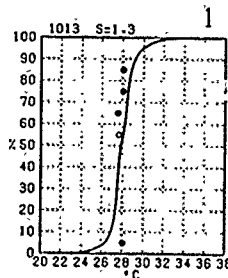
a combined are

s computed from

1420 S=1.3

1786 S=1.8

287 S=1.7



jective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

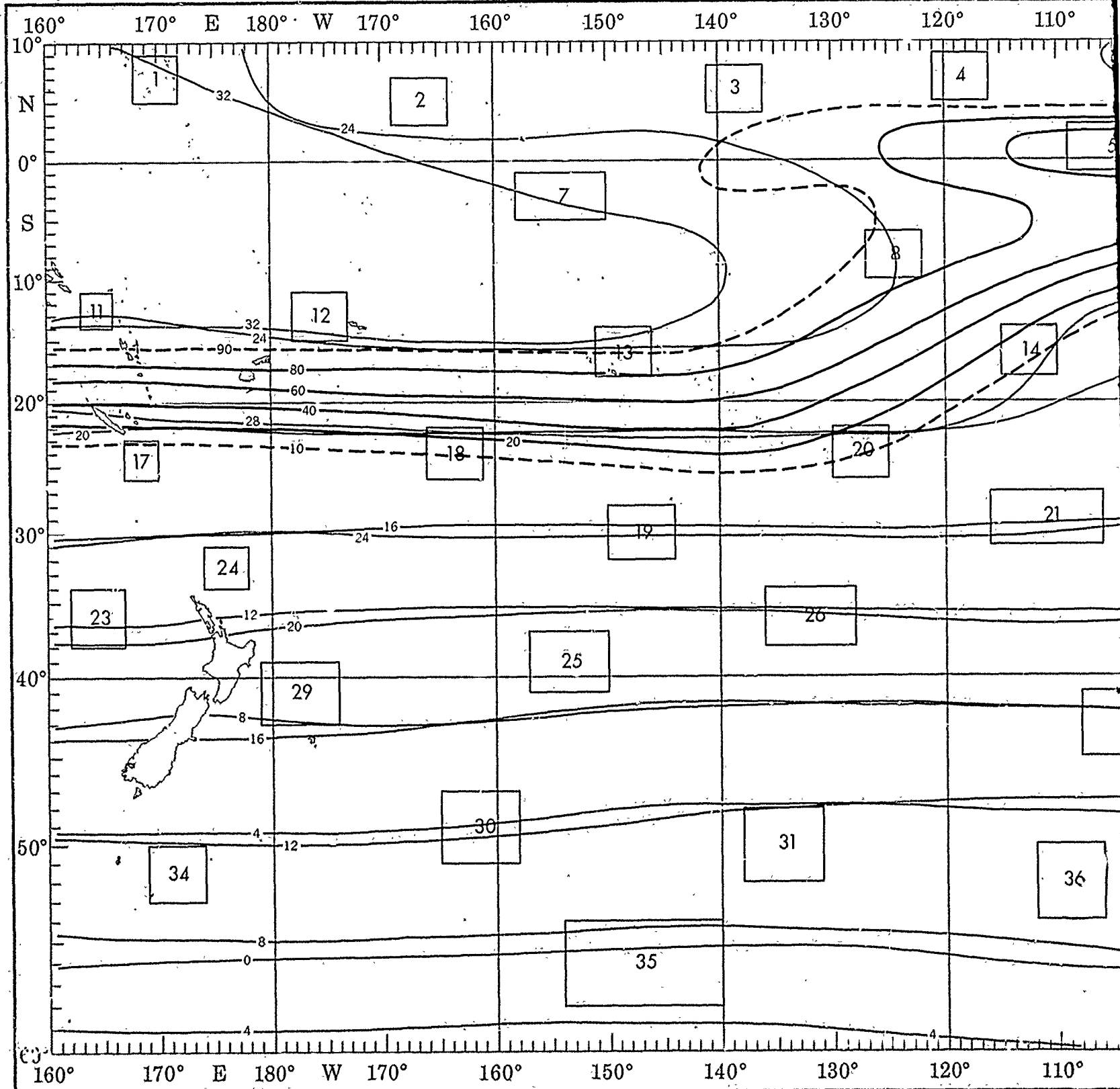
1

1

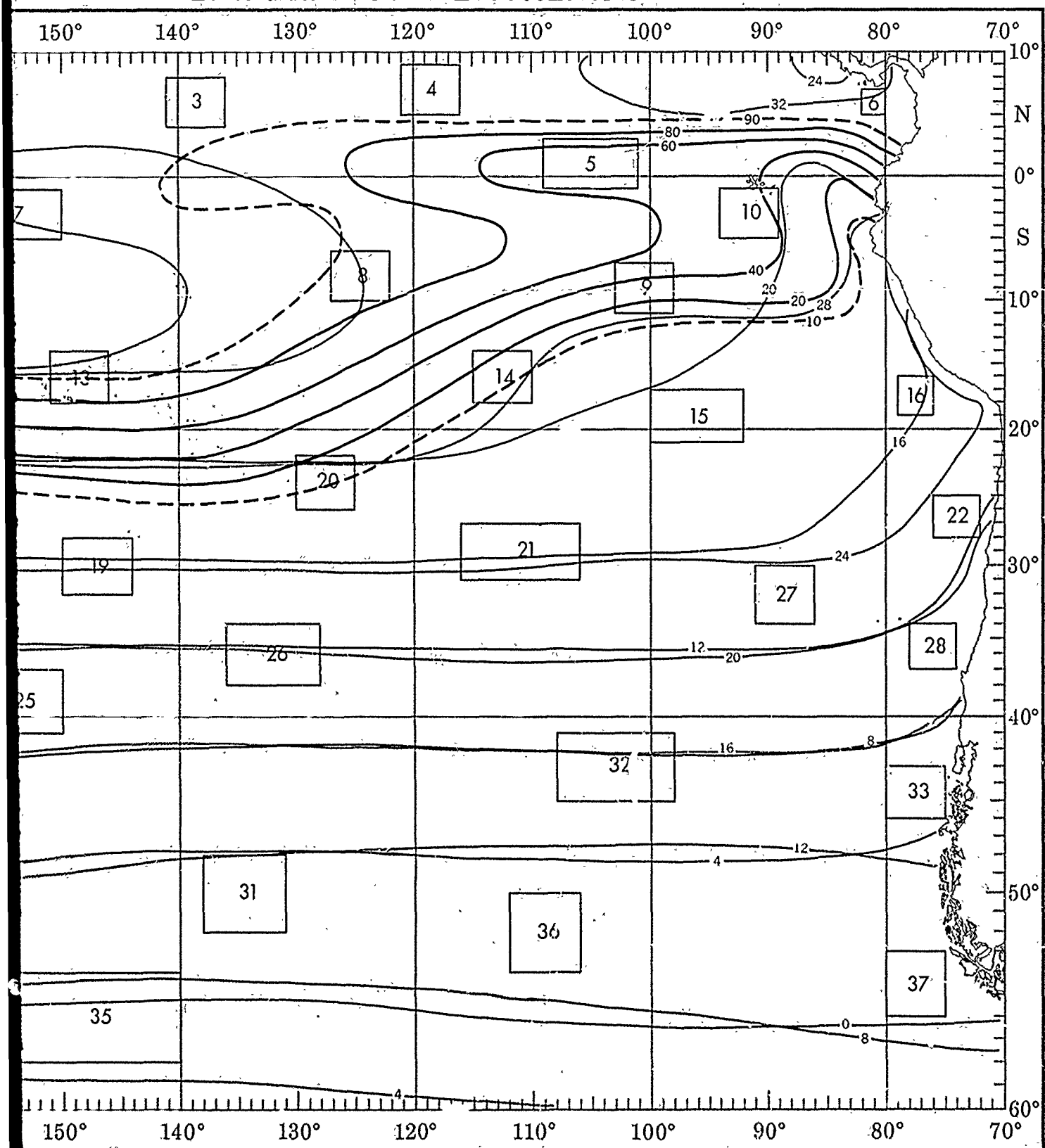
2

MAY

TEMPERATURE EXTREM



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature.

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

Temp (°C)	0-3	4-10	11-21	22-33	≥34
32.33	0	0	0	0	0
30.31	1	7	1	0	0
28.29	4	22	23	2	0
26.27	2	15	15	1	0
24.25	0	1	3	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

* Indicates <5% but >0.

Number of observations.

Use of this table in determination of Potential Superstructure Icing is explained in the text.

WIND SPEED (KTS) 1						WIND SPEED (KTS) 2					
Temp (°C)	0-3	4-10	11-21	22-33	≥34	Temp (°C)	0-3	4-10	11-21	22-33	≥34
32.33	0	0	0	0	0	30.31	0	2	1	0	0
30.31	0	3	4	0	0	28.29	1	16	17	1	0
28.29	2	19	38	3	0	26.27	1	25	28	1	0
26.27	1	7	18	0	0	24.25	0	2	2	1	0
24.25	0	1	0	0	0	22.23	0	0	0	0	0
22.23	0	0	0	0	0	20.21	0	0	0	0	0
20.21	0	0	0	0	0	18.19	0	0	0	0	0
18.19	0	0	0	0	0	16.17	0	0	0	0	0
16.17	0	0	0	0	0	14.15	0	0	0	0	0
14.15	0	0	0	0	0	12.13	0	0	0	0	0
12.13	0	0	0	0	0	10.11	0	0	0	0	0

1013

684

WIND SPEED (KTS) 6						WIND SPEED (KTS) 7					
Temp (°C)	0-3	4-10	11-21	22-33	≥34	Temp (°C)	0-3	4-10	11-21	22-33	≥34
32.33	0	0	0	0	0	30.31	0	0	0	0	0
30.31	0	1	1	0	0	28.29	0	0	0	0	0
28.29	0	1	1	0	0	26.27	0	0	0	0	0
26.27	0	1	1	0	0	24.25	0	0	0	0	0
24.25	0	0	0	0	0	22.23	0	0	0	0	0
22.23	0	0	0	0	0	20.21	0	0	0	0	0
20.21	0	0	0	0	0	18.19	0	0	0	0	0
18.19	0	0	0	0	0	16.17	0	0	0	0	0
16.17	0	0	0	0	0	14.15	0	0	0	0	0
14.15	0	0	0	0	0	12.13	0	0	0	0	0
12.13	0	0	0	0	0	10.11	0	0	0	0	0

1514

385

BLACK LINE - Percent frequency of T-H index $\geq 24^{\circ}\text{C}$ (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11						WIND SPEED (KTS) 12						WIND SPEED (KTS) 13						WIND SPEED (KTS) 14						WIND SPEED (KTS) 15						WIND SPEED (KTS) 16						
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	
32.33	0	3	0	0	0	32.33	+	+	0	0	0	32.33	+	+	+	0	0	30.31	+	+	+	0	0	28.29	0	5	2	0	0	26.27	0	0	1	0	0	
30.31	1	7	1	+	0	30.31	1	3	1	0	0	30.31	1	2	1	+	0	28.29	+	1	+	+	0	24.25	1	5	6	2	0	22.23	0	1	0	0	0	
28.29	4	22	23	2	0	28.29	6	31	23	1	0	28.29	4	17	13	1	0	24.25	1	9	6	+	0	22.23	5	19	21	5	0	20.21	0	1	1	0	0	
26.27	2	15	15	1	0	26.27	3	13	11	2	+	26.27	6	26	20	1	0	20.21	2	7	27	1	0	20.21	2	11	14	1	2	18.19	0	1	1	0	0	
24.25	+	1	3	0	0	24.25	0	1	2	+	0	24.25	+	3	3	+	+	18.19	0	1	1	0	0	16.17	0	0	0	0	0	14.15	0	1	18	21	2	0
22.23	+	0	0	0	0	22.23	0	0	+	0	0	22.23	0	+	+	+	0	16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	1	16	16	3	1	
20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	+	0	0	0	14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	1	3	4	0	0	
18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	
16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	
14.15	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	
12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	
321						586						1013						1443						191						197						

WIND SPEED (KTS) 20						WIND SPEED (KTS) 21						WIND SPEED (KTS) 22						WIND SPEED (KTS) 23						WIND SPEED (KTS) 24						WIND SPEED (KTS) 25						
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	
30.31	0	0	+	0	0	28.29	0	+	0	0	0	28.27	0	0	0	+	0	24.25	0	+	0	0	0	22.23	0	+	0	0	0	20.21	0	+	0	0	0	
28.29	0	1	+	0	0	28.27	0	1	1	0	0	24.25	0	+	+	0	0	22.23	0	1	2	+	0	20.21	0	0	0	0	+	0	18.19	0	0	0	+	0
26.27	1	6	6	+	0	24.25	1	4	2	1	1	22.23	1	+	1	+	0	20.21	+	+	+	+	0	18.19	+	+	+	+	0	16.17	+	+	1	0	+	
24.25	4	23	19	2	+	22.23	2	11	15	6	1	20.21	2	4	1	+	0	18.19	+	3	4	1	+	16.17	2	17	23	8	2	14.15	+	3	8	4	1	
22.23	2	14	14	3	+	20.21	3	17	10	3	0	18.19	6	11	8	1	0	16.17	2	11	11	5	1	14.15	2	11	11	5	1	12.13	1	11	15	7	3	
20.21	+	2	2	+	0	18.19	1	6	6	3	0	16.17	6	24	17	3	0	14.15	+	+	1	1	+	12.13	+	+	1	1	+	10.11	+	1	17	8	2	
18.19	+	+	+	0	0	16.17	0	2	1	1	0	14.15	3	6	4	2	0	12.13	0	+	+	0	0	10.11	0	+	+	0	0	8.9	0	0	0	0	0	
16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	+	+	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	
14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	
12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0	
1530						372						587						1801						761						801						

WIND SPEED (KTS) 29						WIND SPEED (KTS) 30						WIND SPEED (KTS) 31						WIND SPEED (KTS) 32						WIND SPEED (KTS) 33						WIND SPEED (KTS) 34					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
20.21	0	+	0	+	0	12.13	+	1	5	3	1	12.13	0	0	+	+	0	16.17	0	+	+	0	+	18.19	0	+	+	0	0	12.13	0	2	0	0	0
18.19	0	1	1	1	+	10.11	1	6	15	11	3	10.11	0	+	2	4	1	14.15	1	2	2	2	1	16.17	0	0	+	0	0	10.11	8	10	14	6	0
16.17	1	6	12	3	+	8.9	1	8	15	9	4	8.9	1	7	23	12	5	12.13	1	5	12	10	1	14.15	+	1	1	2	1	8.9	2	6	22	6	0
14.15	2	11	12	5	1	6.7	0	1	6	5	2	6.7	2	3	13	10	3	10.11	2	11	15	13	8	12.13	1	7	12	5	2	6.7	0	4	-6	0	0
12.13	3	9	14	8	1	4.5	0	0	1	1	1	4.5	+	1	2	2	4	8.9	2	2	12	4	3	10.11	2	11	16	7	2	4.5	0	0	6	4	0
10.11	1	1	2	3	1	2.3	0	0	0	0	0	2.3	0	0	1	2	2	6.7	+	0	+	0	0	8.9	2	7	8	4	1	2.3	0	0	2	0	0
8.9	0	+	1	1	+	0.1	0	0	0	0	0	0.1	0	0	0	+	0	4.5	0	0	0	0	0	6.7	1	1	3	2	+	0.1	0	0	0	0	0
6.7	0	0	0	+	0	-2.1	0	0	0	0	0	-2.1	0	0	0	0	0	2.3	0	0	0	0	0	4.5	+	0	+	+	0	-2.1	0	0	0	0	0
4.5	0	0	0	0	0	-4.3	0	0	0	0	0	-4.3	0	0	0	0	0	0.1	0	0	0	0	0	2.3	0	0	0	0	0	-4.3	0	0	0	0	0
2.3	0	0	0	0	0	-6.5	0	0	0	0	0	-6.5	0	0	0	0	0	-2.1	0	0	0	0	0	0.1	0	0	0	0	0	-6.5	0	0	0	0	0
0.1	0	0	0	0	0	-8.7	0	0	0	0	0	-8.7	0	0	0	0	0	-4.3	0	0	0	0	0	-2.1	0	0	0	0	0	-8.7	0	0	0	0	0
1347						750						535						290						959						49					

321

566

1013

1443

191

197

WIND SPEED (KTS) 20						WIND SPEED (KTS) 21						WIND SPEED (KTS) 22						WIND SPEED (KTS) 23						WIND SPEED (KTS) 24						WIND SPEED (KTS) 25							
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34		
30.31	0	0	+	0	0	28.29	0	+	0	0	0	28.27	0	0	0	+	0	28.27	0	0	+	0	0	24.25	0	+	0	0	0	22.23	0	+	0	0	0		
28.29	0	0	1	+	0	0	28.27	0	1	1	0	0	24.25	0	+	+	0	0	24.25	0	+	+	0	0	22.23	0	+	1	2	+	0	20.21	0	0	0	+	0
26.27	1	6	6	+	0	24.25	1	4	2	1	1	22.23	1	+	1	+	0	22.23	+	+	+	+	0	20.21	1	4	7	1	+	18.19	0	+	1	0	+		
24.25	4	23	19	2	+	22.23	2	11	15	6	1	20.21	2	4	1	1	+	20.21	+	3	4	1	+	18.19	2	17	23	8	2	16.17	+	3	8	4	1		
22.23	2	14	14	3	+	20.21	3	17	10	3	0	18.19	6	11	8	1	0	18.19	2	12	13	5	1	16.17	2	11	11	5	1	14.15	1	11	15	7	3		
20.21	+	2	2	+	0	18.19	1	6	6	3	0	16.17	6	24	17	3	0	16.17	3	11	16	7	3	14.15	+	+	1	1	+	12.13	+	+	1	1	+		
18.19	+	+	+	0	0	16.17	0	2	1	1	0	14.15	3	6	4	2	0	14.15	1	4	5	4	1	12.13	0	+	+	+	0	10.11	0	+	+	0	0		
16.17	0	0	0	0	0	14.15	0	0	0	0	0	12.13	0	+	+	0	0	12.13	+	1	1	1	+	10.11	0	0	0	0	0	8.9	0	0	0	0	0		
14.15	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	+	8.9	0	0	0	0	0	6.7	0	0	0	0	0		
12.13	0	0	0	0	0	10.11	0	0	0	0	0	8.9	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0		
10.11	0	0	0	0	0	8.9	0	0	0	0	0	6.7	0	0	0	0	0	6.7	0	0	0	0	0	4.5	0	0	0	0	0	2.3	0	0	0	0	0		
1530						372						587						1801						761						801							

WIND SPEED (KTS) 29						WIND SPEED (KTS) 30						WIND SPEED (KTS) 31						WIND SPEED (KTS) 32						WIND SPEED (KTS) 33						WIND SPEED (KTS) 34					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
20.21	0	+	0	+	0	12.13	+	1	5	3	1	12.13	0	0	+	+	0	18.19	0	+	+	0	+	18.19	0	+	+	0	0	12.13	0	2	0	0	0
18.19	0	1	1	1	+	10.11	1	6	15	11	3	10.11	0	+	2	4	1	16.17	0	0	+	0	0	16.17	0	0	+	0	0	10.11	8	10	14	6	0
16.17	1	6	12	3	+	8.9	1	8	15	9	4	8.9	1	7	23	12	5	14.15	+	1	1	2	1	14.15	+	1	1	2	1	8.9	2	6	22	6	0
14.15	2	11	12	5	1	6.7	0	1	6	5	2	6.7	2	3	13	10	3	12.13	1	7	12	5	2	12.13	1	7	12	5	2	6.7	0	4	-6	0	0
12.13	3	9	14	8	1	4.5	0	0	1	1	1	4.5	+	1	2	2	4	10.11	2	2	2	4	3	10.11	2	11	16	7	2	4.5	0	0	6	4	0
10.11	1	1	2	3	1	2.3	0	0	0	0	0	2.3	0	0	1	2	2	8.9	+	0	+	0	0	8.9	2	7	8	4	1	2.3	0	0	2	0	0
8.9	0	+	1	1	+	0.1	0	0	0	0	0	0.1	0	0	0	+	0	6.7	1	1	3	2	+	6.7	1	1	3	2	+	0.1	0	0	0	0	0
6.7	0	0	0	+	0	-2,-1	0	0	0	0	0	-2,-1	0	0	0	0	0	4.5	+	0	+	+	0	4.5	+	0	+	+	0	-2,-1	0	0	0	0	0
4.5	0	0	0	0	0	-4,-3	0	0	0	0	0	-4,-3	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0	-4,-3	0	0	0	0	0
2.3	0	0	0	0	0	-8,-7	0	0	0	0	0	-8,-7	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	-6,-5	0	0	0	0	0
0.1	0	0	0	0	0	-8,-7	0	0	0	0	0	-8,-7	0	0	0	0	0	-2,-1	0	0	0	0	0	-2,-1	0	0	0	0	0	-8,-7	0	0	0	0	0
1347						750						535						290						959						49					

1530

372

587

1801

761

801

WIND SPEED (KTS) 29						WIND SPEED (KTS) 30						WIND SPEED (KTS) 31						WIND SPEED (KTS) 32						WIND SPEED (KTS) 33						WIND SPEED (KTS) 34					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34	TEMP (°C)	0-3	4-10	11-21	22-33	≥34
20.21	0	+	0	+	0	12.13	+	1	5	3	1	12.13	0	0	+	+	0	16.17	0	+	+	0	+	10.10	0	+	+	0	0	12.13	0	2	0	0	0
19.10	0	1	1	1	+	10.11	1	6	15	11	3	10.11	0	+	2	4	1	14.16	1	2	2	2	1	16.17	0	0	+	0	0	10.11	8	10	14	6	0
16.17	1	6	12	3	+	0.9	1	8	15	9	4	0.9	1	7	23	12	5	14.16	+	1	1	2	1	14.16	+	0	1	2	1	0.9	2	6	22	6	0
14.16	2	11	12	5	1	6.7	0	1	6	5	2	6.7	2	3	13	10	3	10.11	2	11	15	13	8	12.13	1	7	12	5	2	6.7	0	4	-6	0	0
12.13	3	9	14	8	1	-4.6	0	0	1	1	1	-4.6	+	1	2	2	4	0.9	2	2	2	4	3	10.11	2	11	16	7	2	4.5	0	6	4	0	0
10.11	1	1	2	3	1	2.3	0	0	0	0	0	2.3	0	0	1	2	2	6.7	+	0	+	0	0	0.9	2	7	8	4	1	2.3	0	0	2	0	0
0.9	0	+	1	1	+	0.1	0	0	0	0	0	0.1	0	0	0	+	0	4.6	0	0	0	0	0	6.7	1	1	3	2	+	0.1	0	0	0	0	0
6.7	0	0	0	+	0	-2.1	0	0	0	0	0	-2.1	0	0	0	0	0	2.3	0	0	0	0	0	4.6	+	0	+	+	0	-2.1	0	0	0	0	0
4.6	0	0	0	0	0	-4.3	0	0	0	0	0	-4.3	0	0	0	0	0	0.1	0	0	0	0	0	-2.3	0	0	0	0	0	-4.3	0	0	0	0	0
2.3	0	0	0	0	0	-6.6	0	0	0	0	0	-6.6	0	0	0	0	0	-2.1	0	0	0	0	0	0.1	0	0	0	0	0	-6.6	0	0	0	0	0
0.1	0	0	0	0	0	-0.7	0	0	0	0	0	-0.7	0	0	0	0	0	-4.3	0	0	0	0	0	-2.1	0	0	0	0	0	-0.7	0	0	0	0	0
1347						750						535						290						959						49					

TEMPERATURE

MAY

and wind speed

of 22-33 kts.)

ed in the text.

heat)

the given value)

ven value)

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	+	+	0	0
28.29	+	+	+	0	0
26.27	1	9	6	+	0
24.25	4	27	27	1	0
22.23	2	9	10	1	0
20.21	0	+	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1443

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	0	5	2	0	0
24.25	1	5	6	2	0
22.23	5	19	21	5	0
20.21	2	11	14	1	2
18.19	0	1	1	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

191

WIND SPEED (KTS) 16

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	0	1	0	0
26.27	0	1	0	0	0
24.25	0	1	1	0	0
22.23	1	7	5	1	0
20.21	1	18	21	2	0
18.19	1	16	16	3	1
16.17	1	3	4	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

197

WIND SPEED (KTS) 17

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	+	+	0	0	0
26.27	+	2	1	+	0
24.25	+	8	6	1	0
22.23	3	23	25	7	+
20.21	1	6	10	2	0
18.19	0	1	+	+	0
16.17	0	0	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

647

WIND SPEED (KTS) 18

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	0	+	0	0
26.27	+	3	2	+	0
24.25	2	11	13	1	0
22.23	3	21	22	3	+
20.21	1	8	6	2	0
18.19	0	+	1	0	0
16.17	0	0	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

604

WIND SPEED (KTS) 19

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	0	0	+	+	0
24.25	0	+	+	+	0
22.23	1	7	7	2	+
20.21	2	14	14	6	1
18.19	2	13	16	5	1
16.17	+	4	3	1	1
14.15	+	0	+	+	+
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

1191

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	0	0	+	0	0
24.25	0	+	+	0	0
22.23	+	+	+	+	0
20.21	+	3	4	1	+
18.19	2	12	13	5	1
16.17	3	11	16	7	3
14.15	1	4	5	4	1
12.13	+	1	1	1	+
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

1801

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	0	+	0	0	0
22.23	+	1	2	+	0
20.21	1	4	7	1	+
18.19	2	17	23	8	2
16.17	2	11	11	5	1
14.15	+	+	1	1	+
12.13	0	+	+	+	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0

761

WIND SPEED (KTS) 25

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	0	+	0	0	0
20.21	0	0	0	+	0
18.19	0	+	1	0	+
16.17	+	3	8	4	1
14.15	1	11	15	7	3
12.13	1	11	17	8	2
10.11	1	3	2	1	+
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

801

WIND SPEED (KTS) 26

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	0	+	0	0	0
20.21	0	1	4	+	0
18.19	0	9	7	2	+
16.17	5	8	15	6	2
14.15	1	6	12	7	3
12.13	+	4	3	2	1
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

573

WIND SPEED (KTS) 27

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	1	2	1	0	0
20.21	2	8	8	1	0
18.19	6	20	15	5	1
16.17	3	8	10	3	+
14.15	1	0	2	1	+
12.13	0	0	0	0	+
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

364

WIND SPEED (KTS) 28

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
20.21	0	+	0	+	0
18.19	1	1	3	+	0
16.17	4	14	11	3	1
14.15	8	15	15	4	1
12.13	1	4	5	5	+
10.11	0	1	1	1	0
8.9	+	+	+	+	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

392

WIND SPEED (KTS) 32

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
16.17	0	+	+	0	+
14.15	1	2	2	2	1
12.13	1	5	12	10	1
10.11	2	11	15	13	8
8.9	2	2	2	4	3
6.7	+	0	+	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0

290

WIND SPEED (KTS) 33

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
18.19	0	+	+	0	0
16.17	0	0	+	0	0
14.15	+	1	1	2	1
12.13	1	7	12	5	2
10.11	2	11	16	7	2
8.9	2	7	8	4	1
6.7	1	1	3	2	+
4.5	+	0	+	+	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0

959

WIND SPEED (KTS) 34

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
12.13	0	2	0	0	0
10.11	8	10	14	6	0
8.9	2	6	22	6	0
6.7	0	4	6	0	0
4.5	0	0	6	4	0
2.3	0	0	2	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0

49

WIND SPEED (KTS) 35

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
8.9	0	0	0	2	0
6.7	0	2	14	2	0
4.5	0	2	23	4	2
2.3	1	4	10	16	2
0.1	0	3	6	4	1
-2.1	0	0	2	2	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0
-12.11	0	0	0	0	0

128

WIND SPEED (KTS) 36

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
8.9	+	0	0	1	+
6.7	1	4	8	5	3
4.5	2	8	17	14	5
2.3	+	6	7	11	1
0.1	0	+	2	2	1
-2.1	0	0	+	1	+
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0
-12.11	0	0	0	0	0

444

WIND SPEED (KTS) 37

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
10.11	0	+	+	0	0
8.9	0	+	2	2	2
6.7	1	4	10	11	13
4.5	2	6	9	8	7
2.3	1	3	4	3	4
0.1	+	1	2	1	1
-2.1	0	+	+	+	1
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

875

objective compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

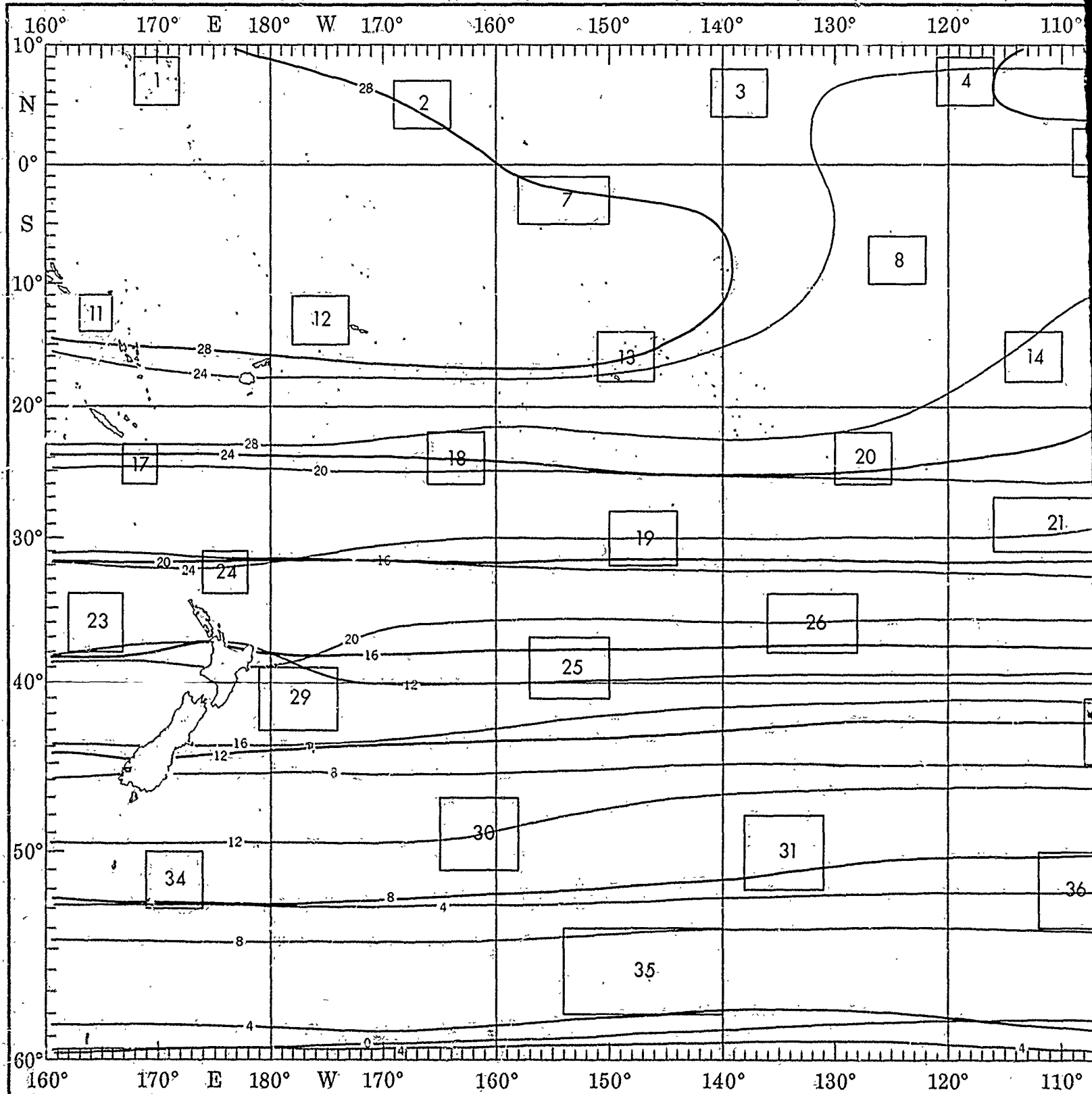
4

1

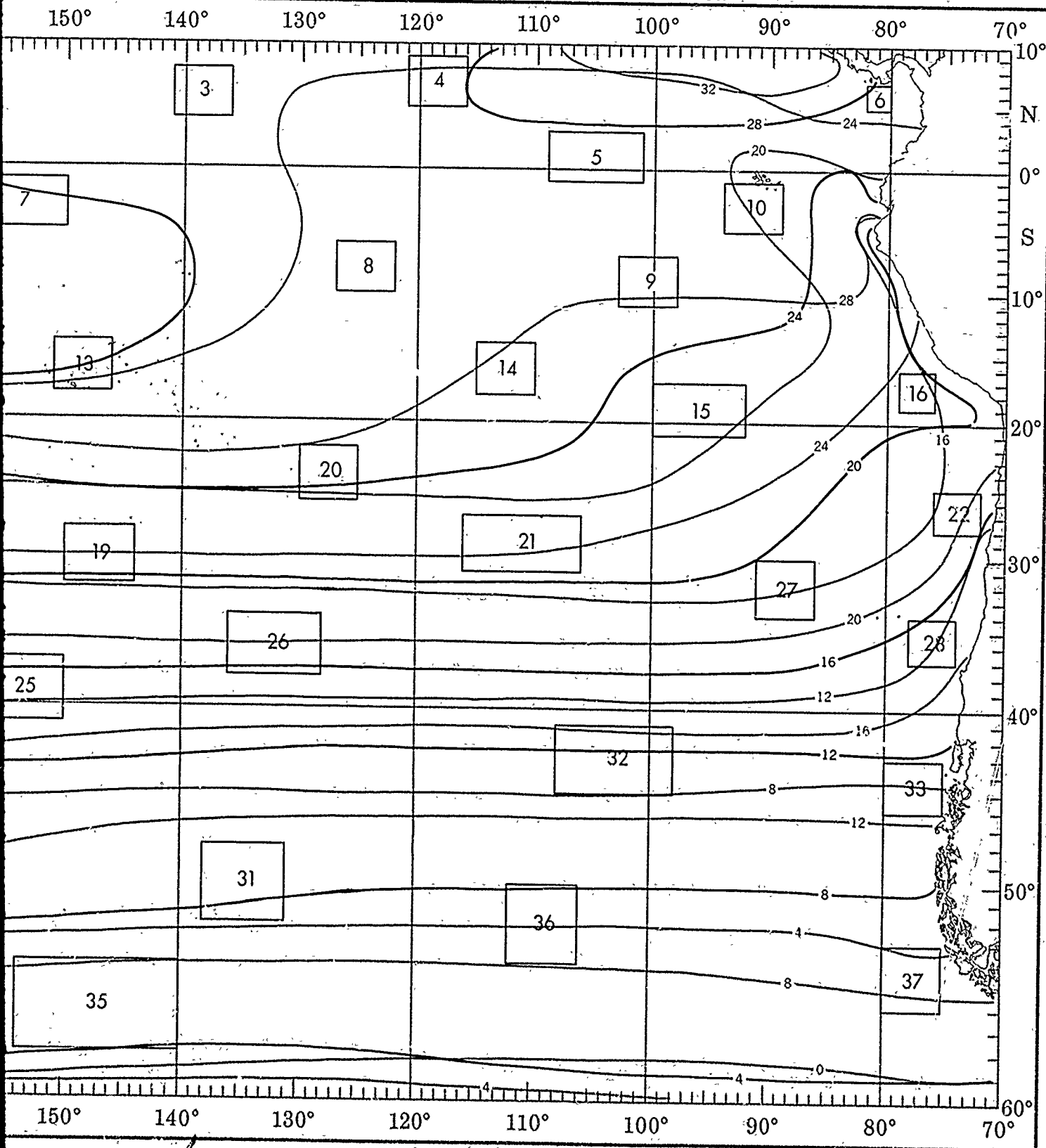
2

MAY

SEA SU



SEA SURFACE TEMPERATURE



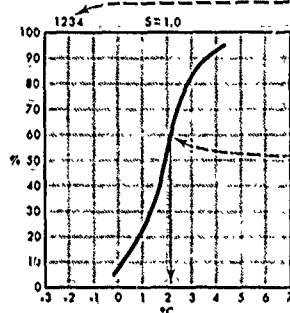
1

2

SEA SURFACE TEMPERATURE

Sea surface temperature.

Number of observations.



Cumulative percent frequency of sea surface temperatures equal to or less than the temperature intersected by the curve.

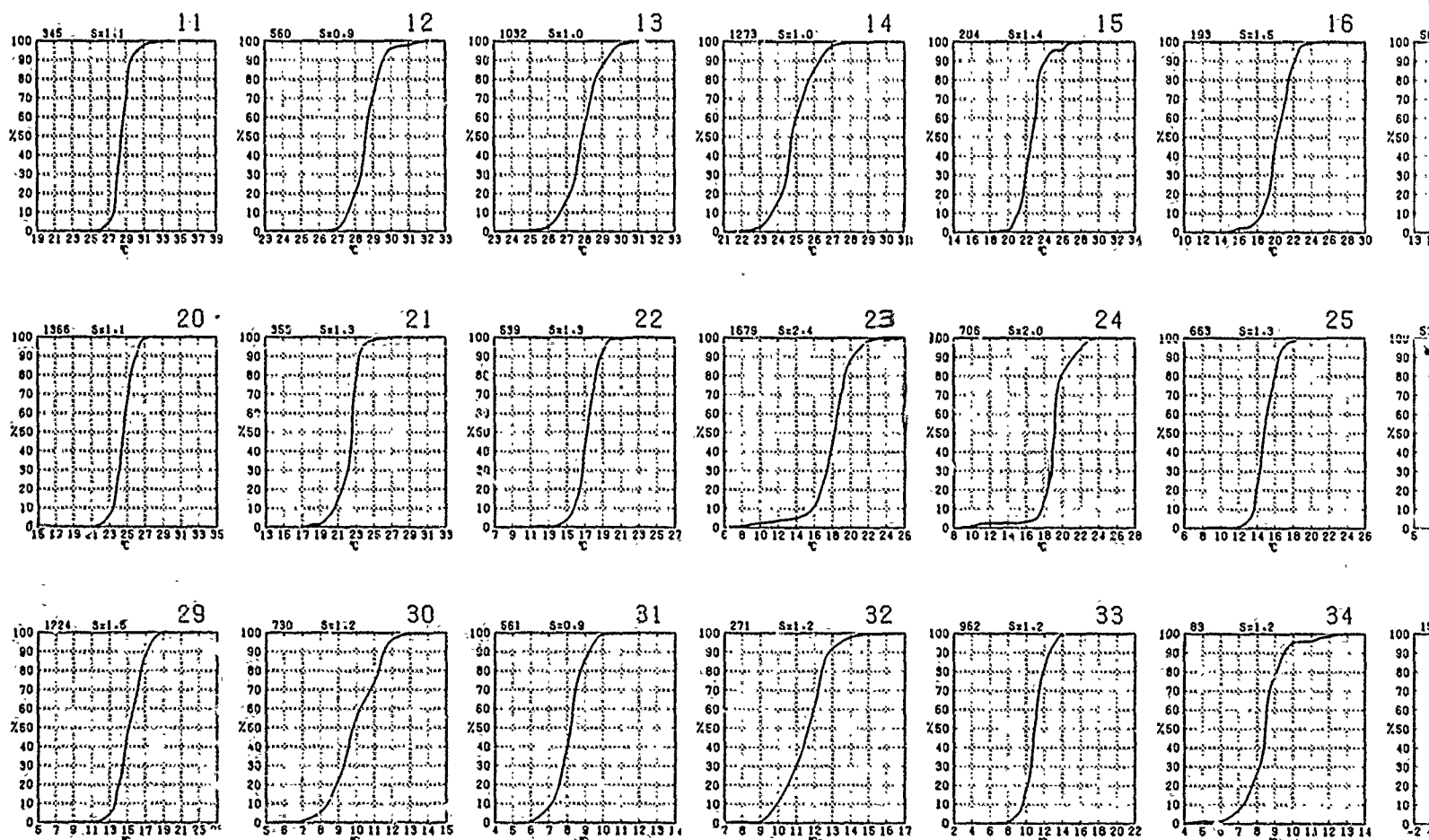
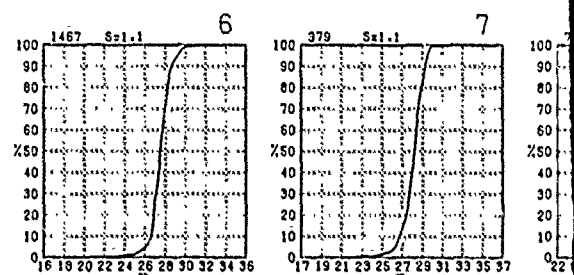
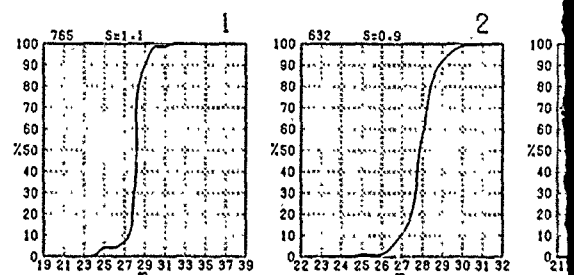
(60% of all observed sea surface temperatures were $\leq 2.1^{\circ}\text{C}$ or $\leq 35.8^{\circ}\text{F}$.)

S = Standard deviation of sea surface temperatures ($^{\circ}\text{C}$).

BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to sun. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

URE

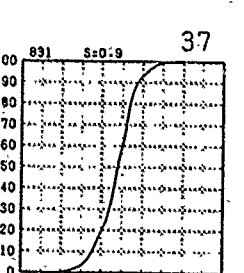
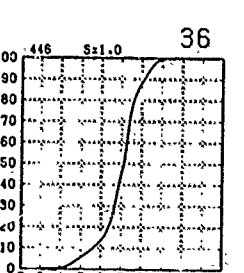
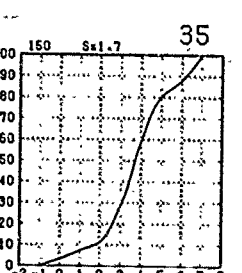
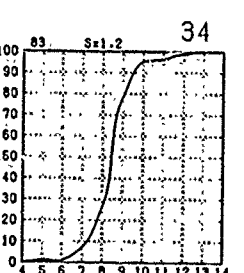
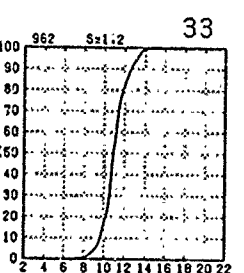
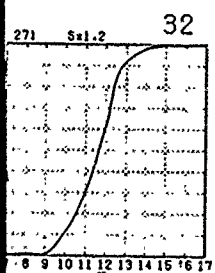
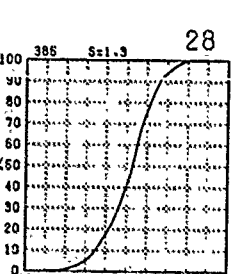
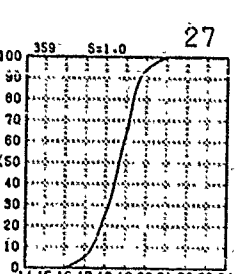
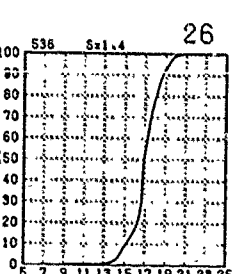
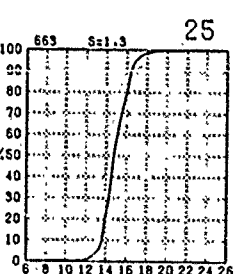
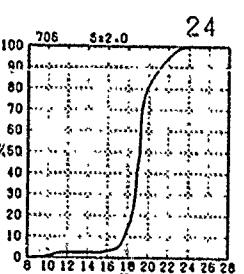
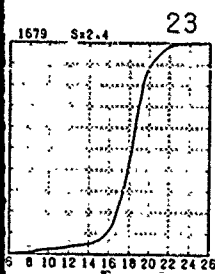
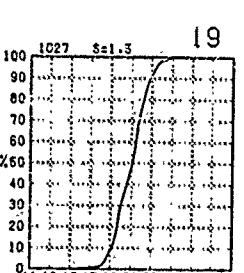
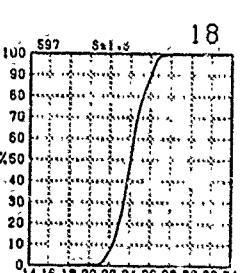
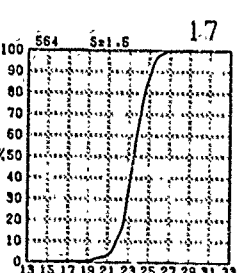
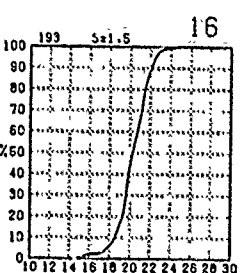
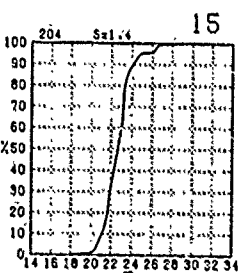
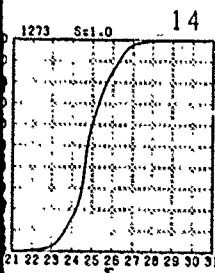
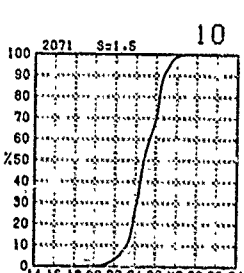
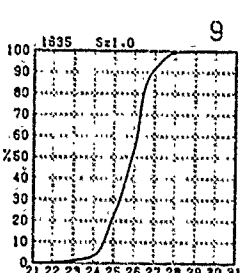
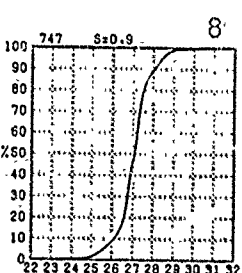
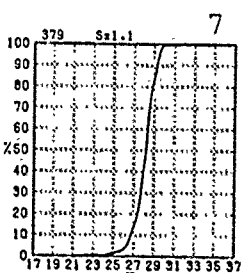
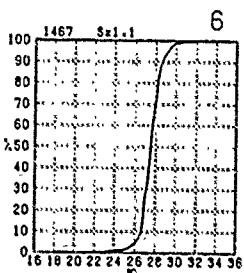
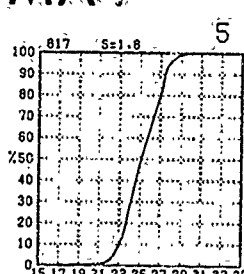
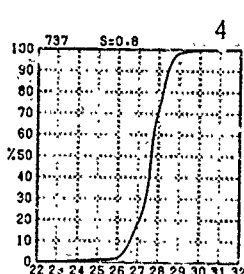
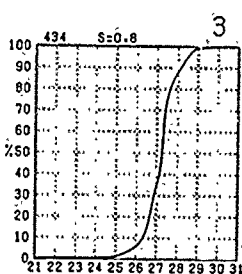
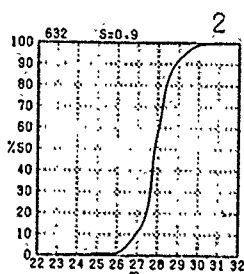
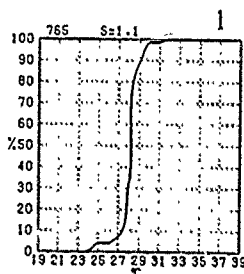
MAY

ures equal to or less

58°F.]

s than the given

the given value)

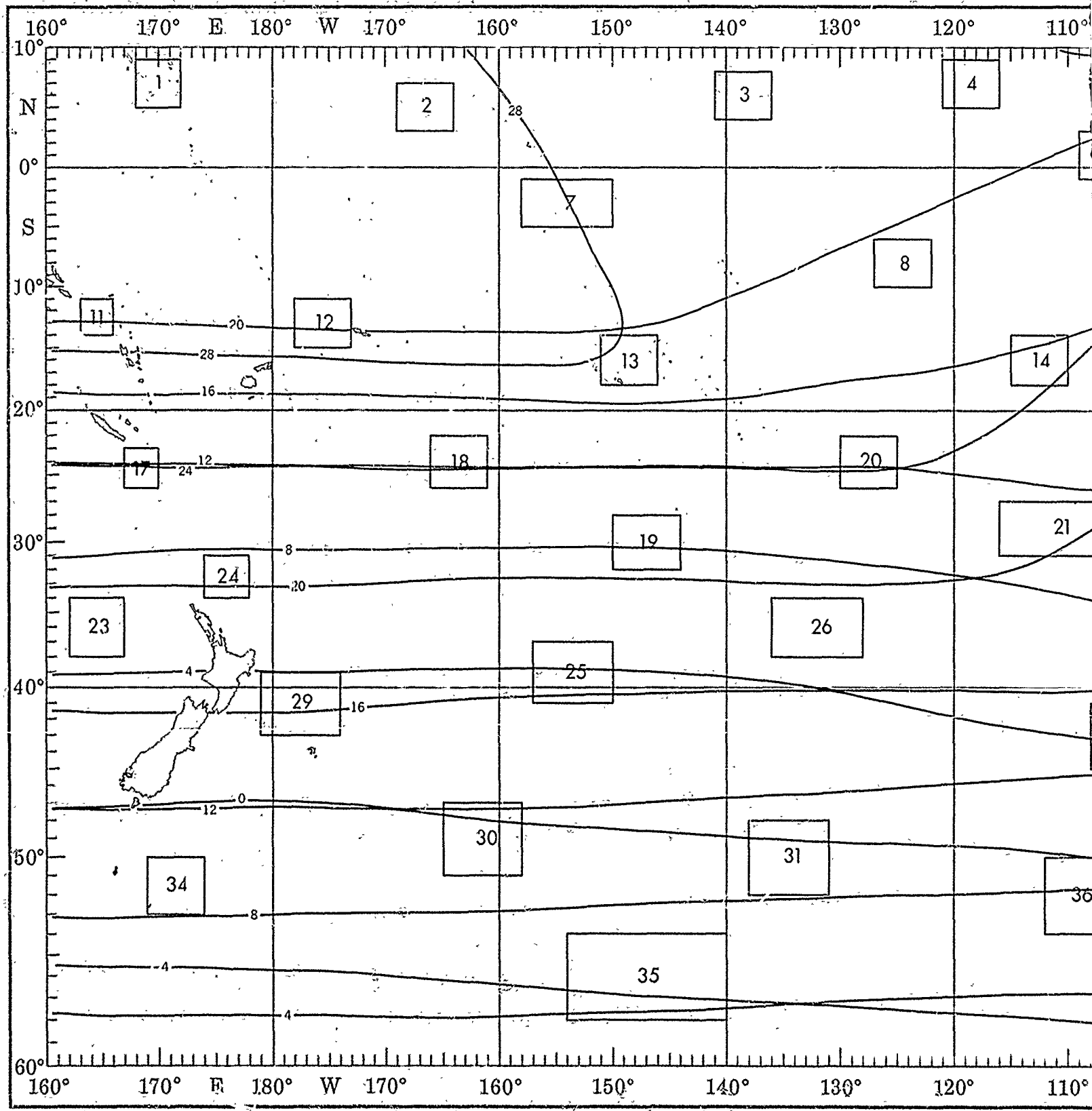


jective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

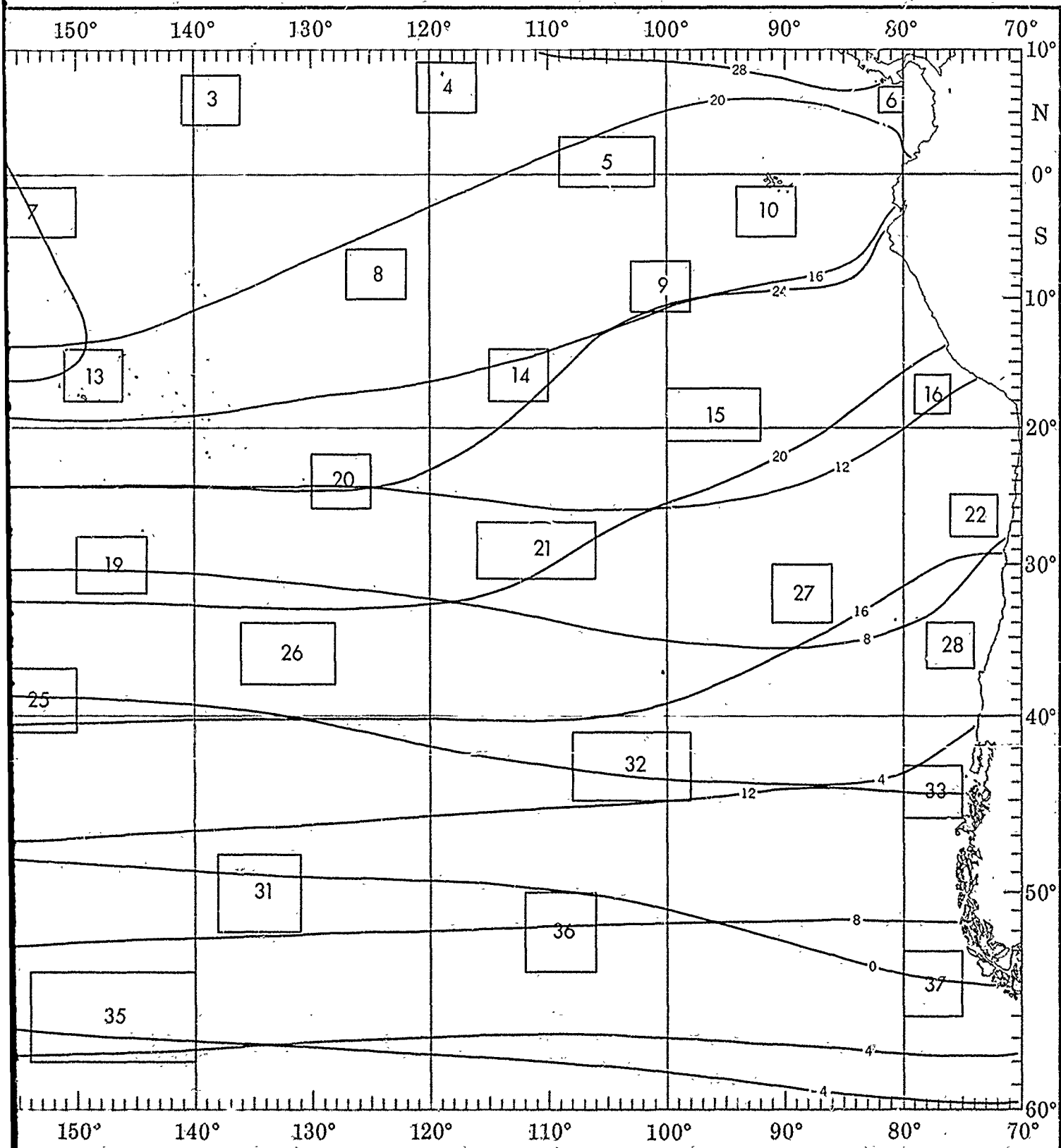
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2

MAY



HUMIDITY



1

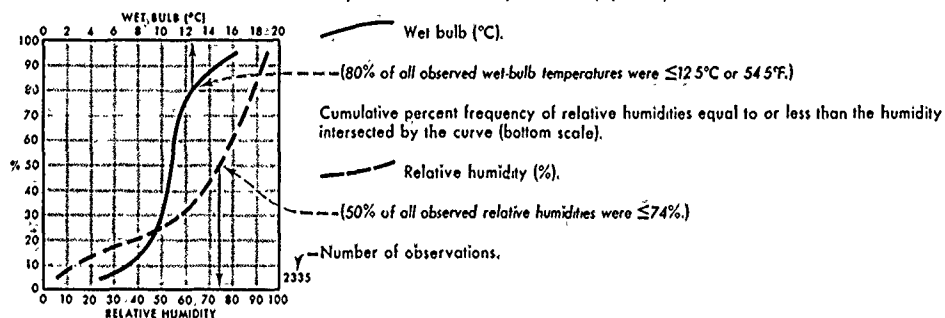
1

2

WET BULB AND RELATIVE HUMIDITY

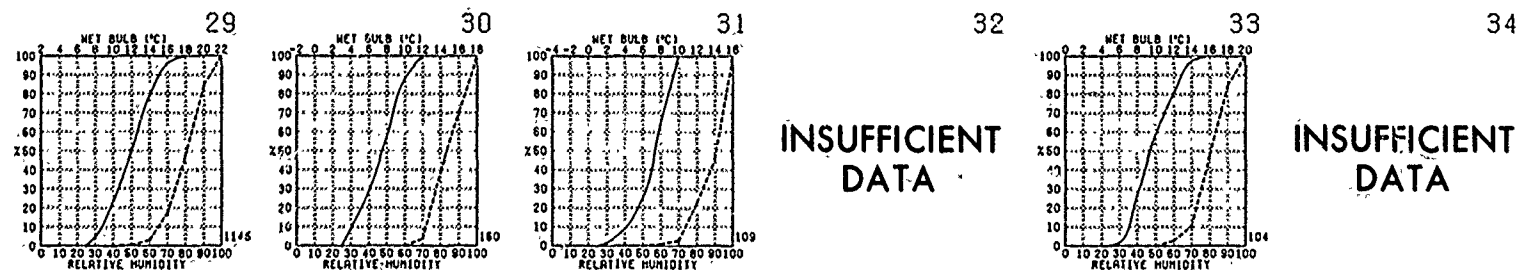
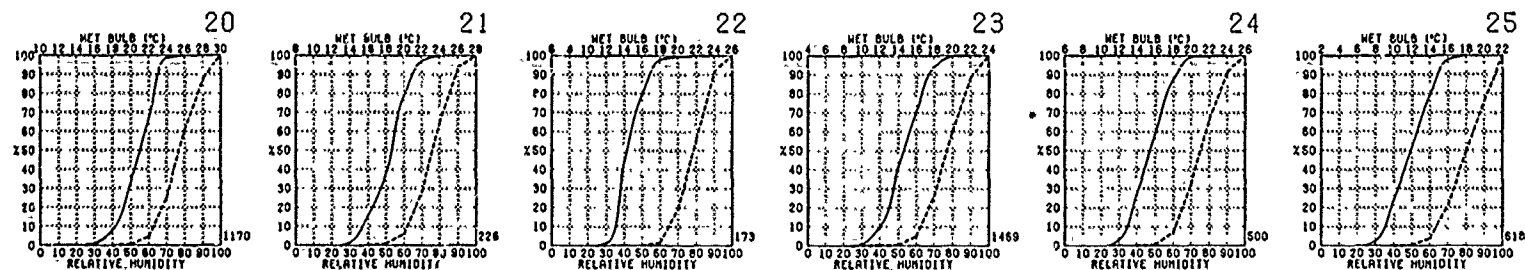
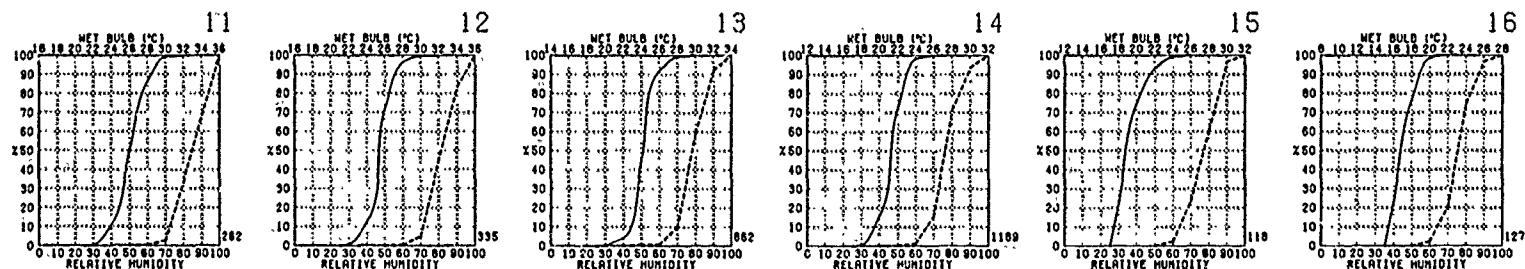
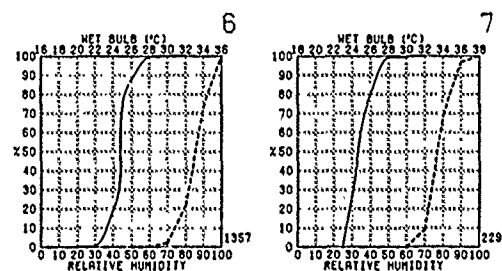
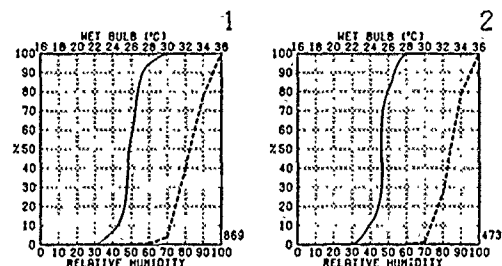
Wet bulb - Relative humidity.

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).



BLUE LINE - Minimum (1%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

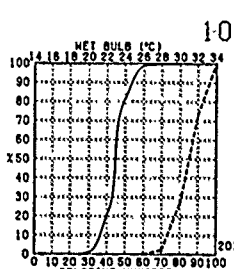
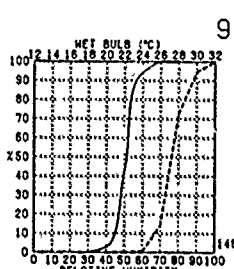
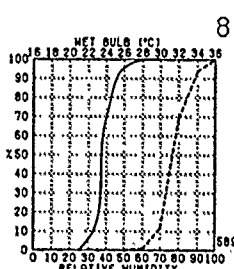
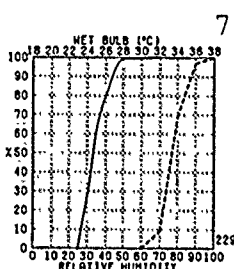
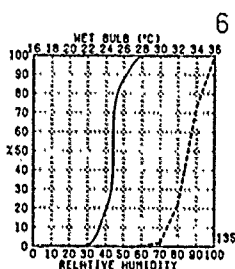
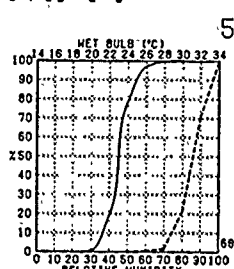
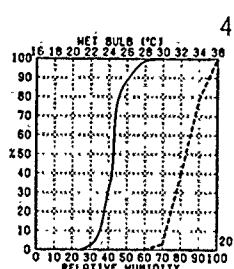
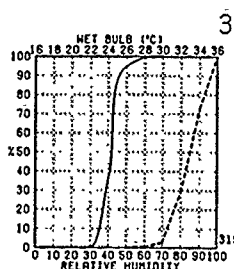
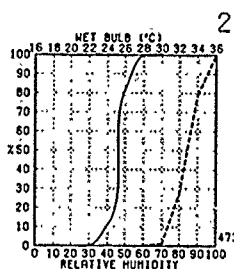
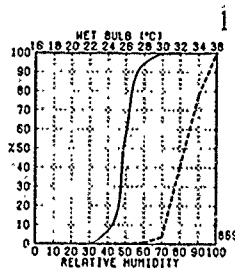
IVE HUMIDITY

MAY

equal to or less than the

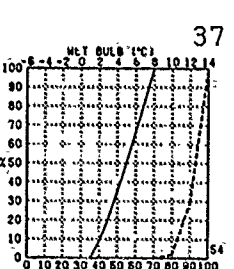
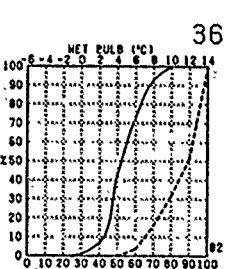
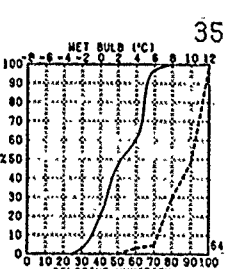
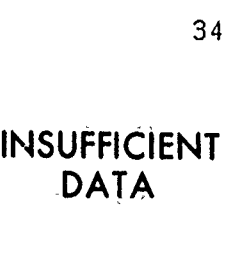
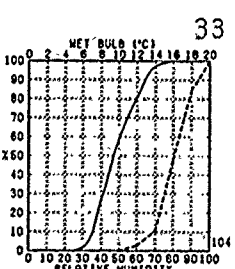
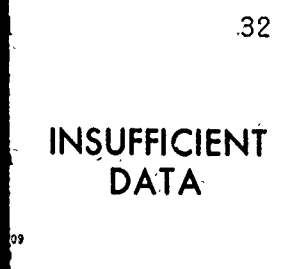
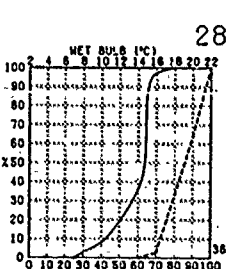
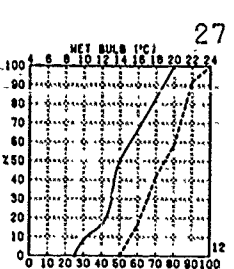
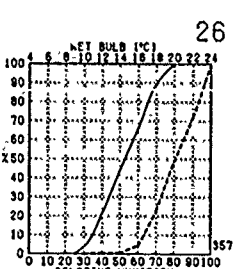
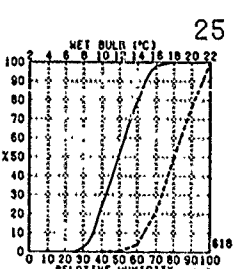
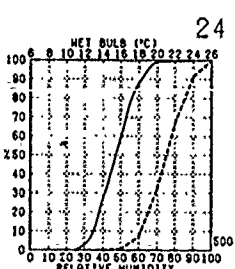
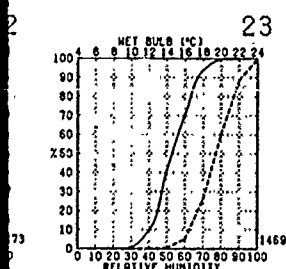
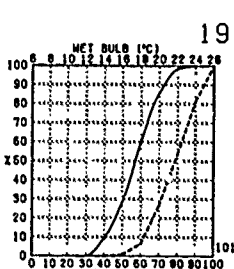
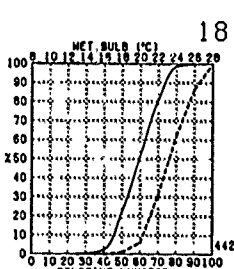
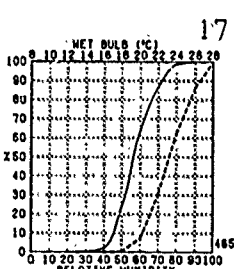
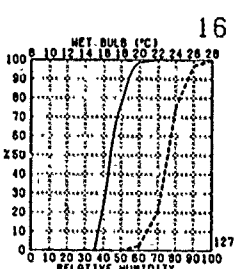
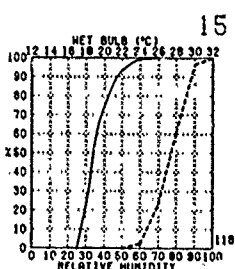
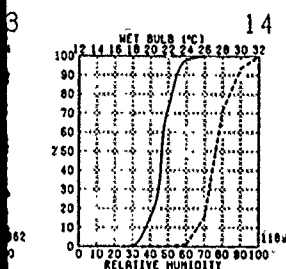
or 54.5°F.)

al to or less than the humidity



to or less than the given

oter than the given value)



INSUFFICIENT
DATA

INSUFFICIENT
DATA

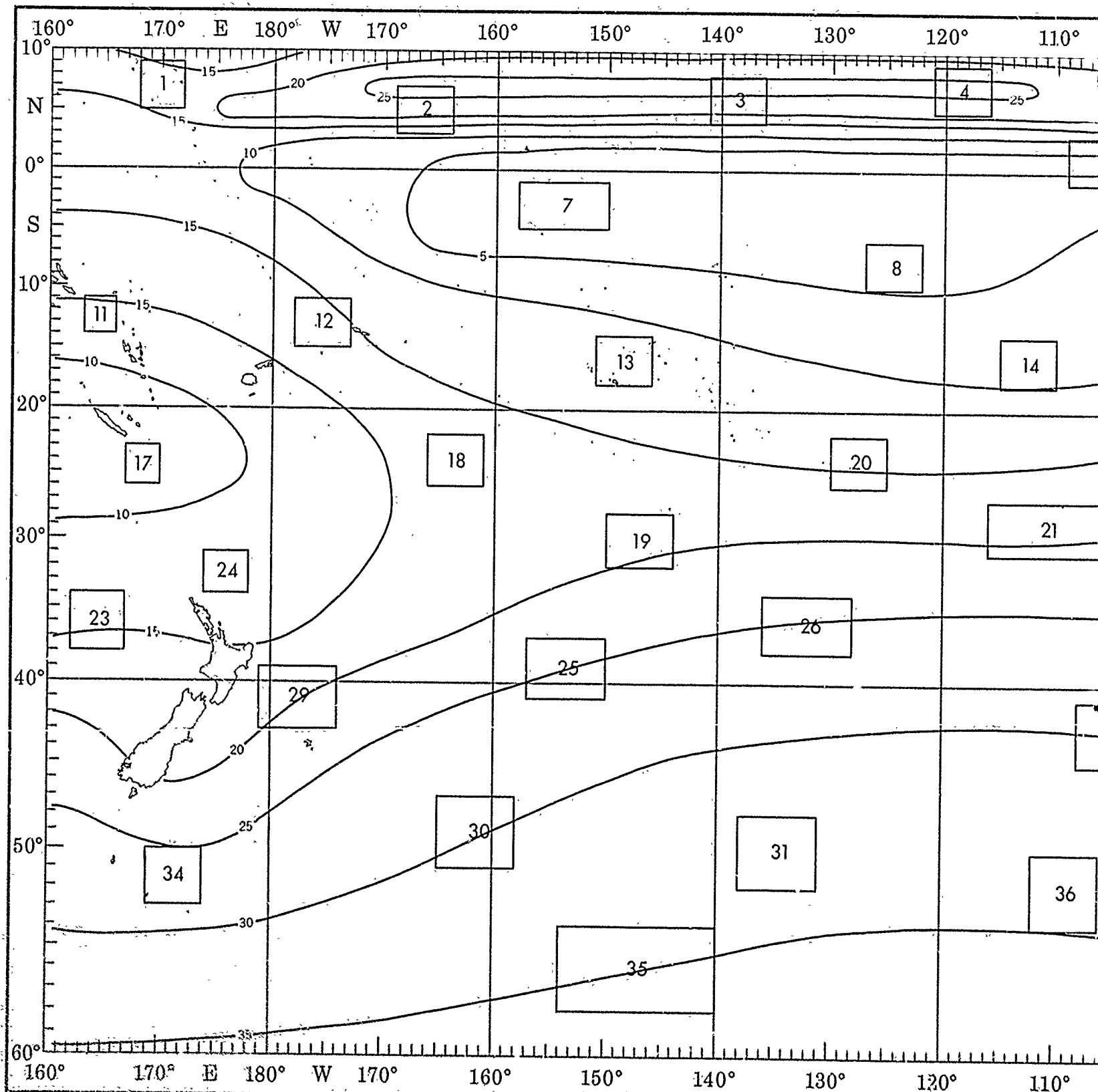
the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

2

1

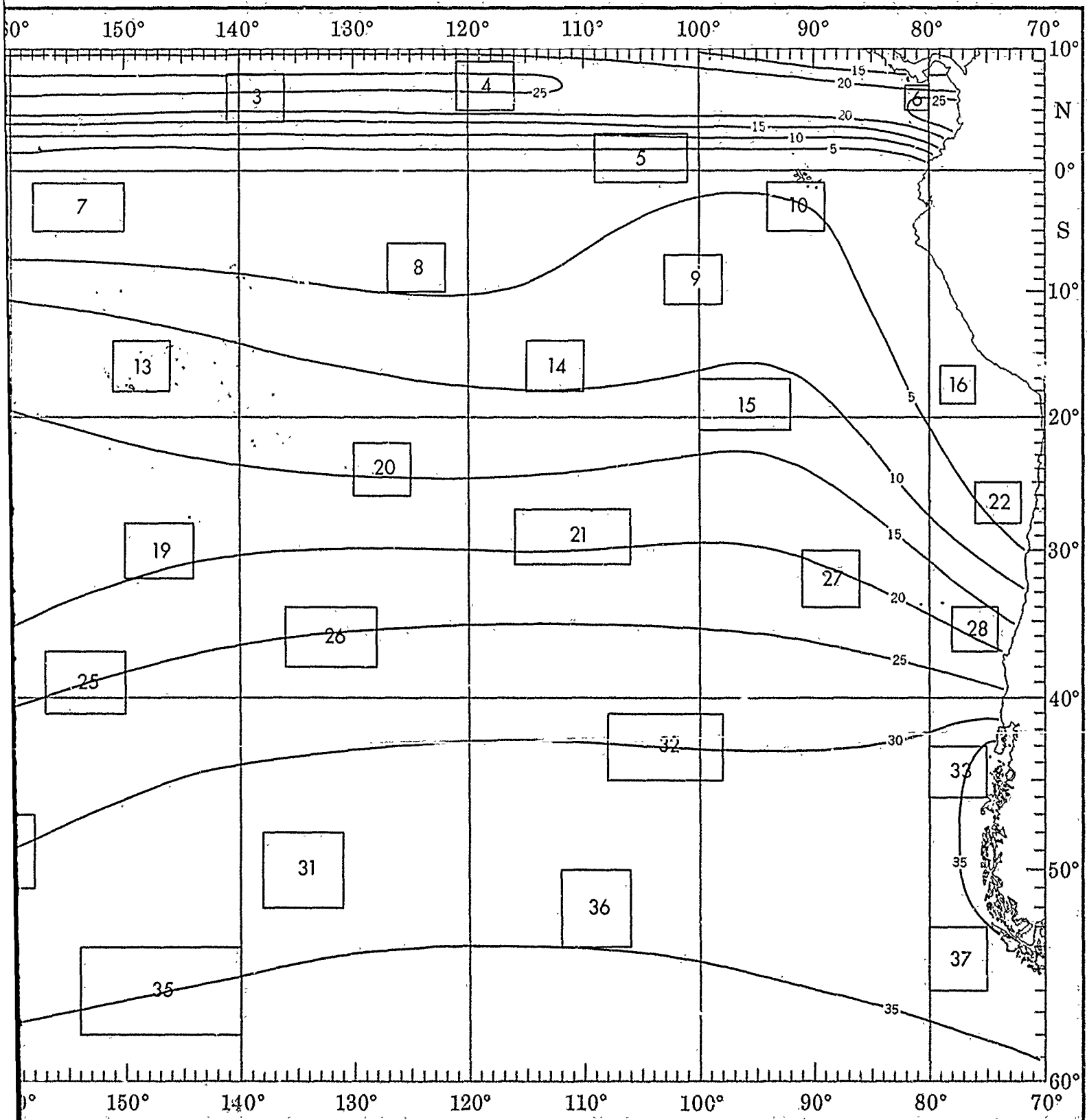
2

MAY



2 f

PRECIPITATION

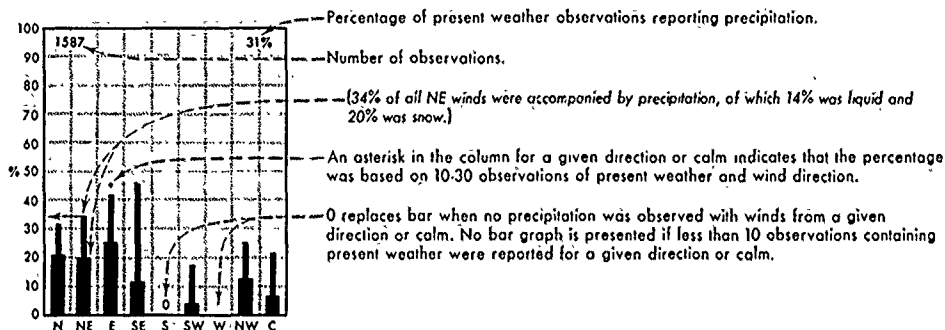


2 1 2

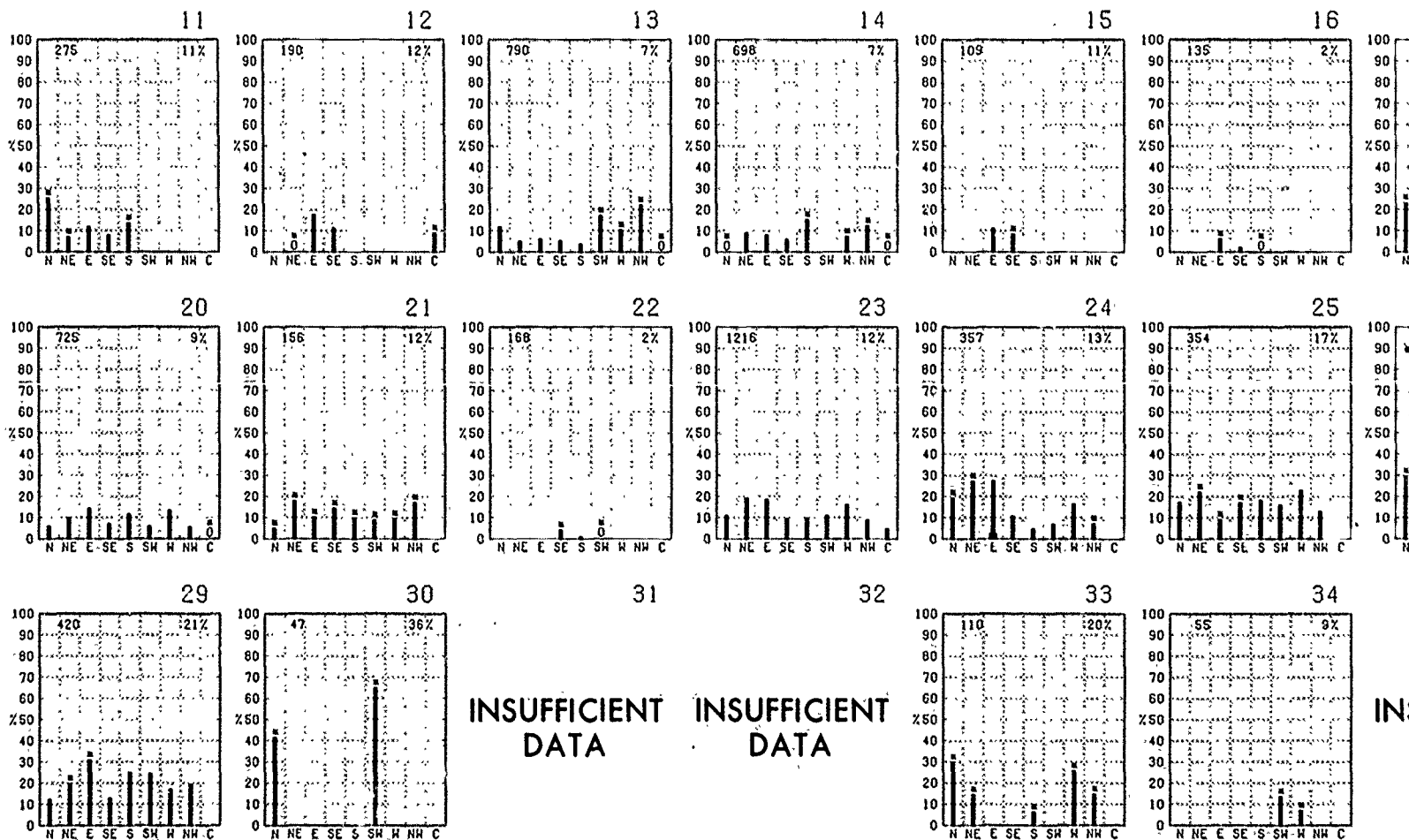
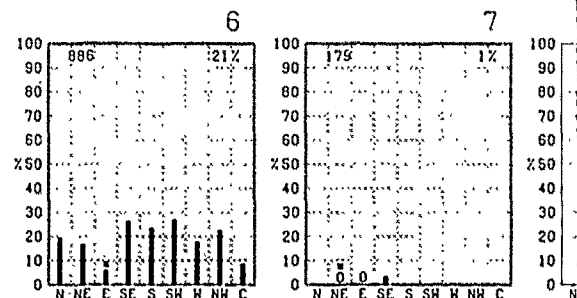
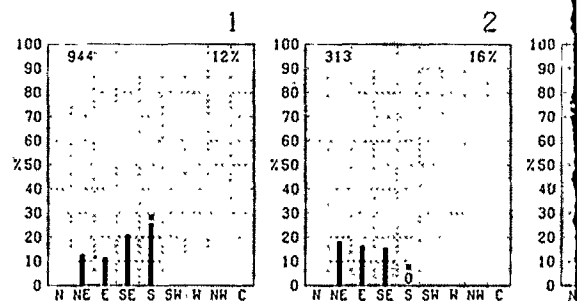
PRECIPITATION

% Pcpn. % Liquid.
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to sus. The isoplath analyses (opposite page) are based on all available data subjectively adjusted where bio.

MAY

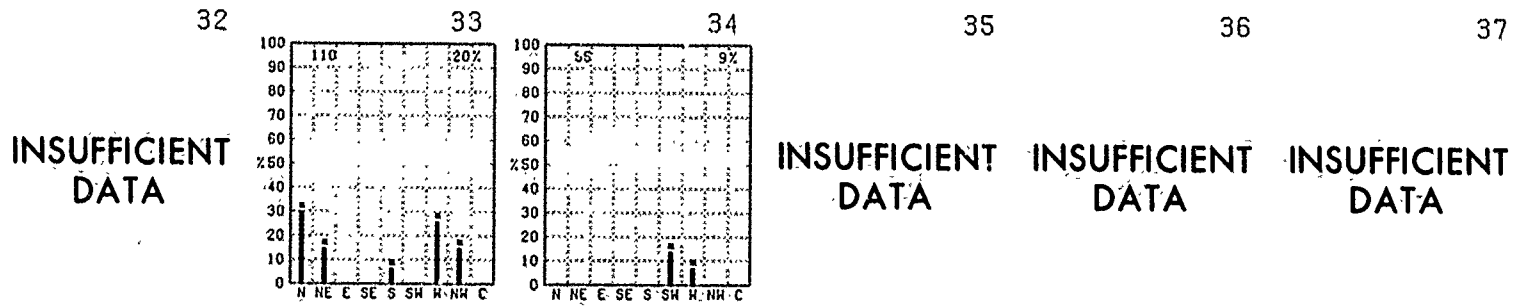
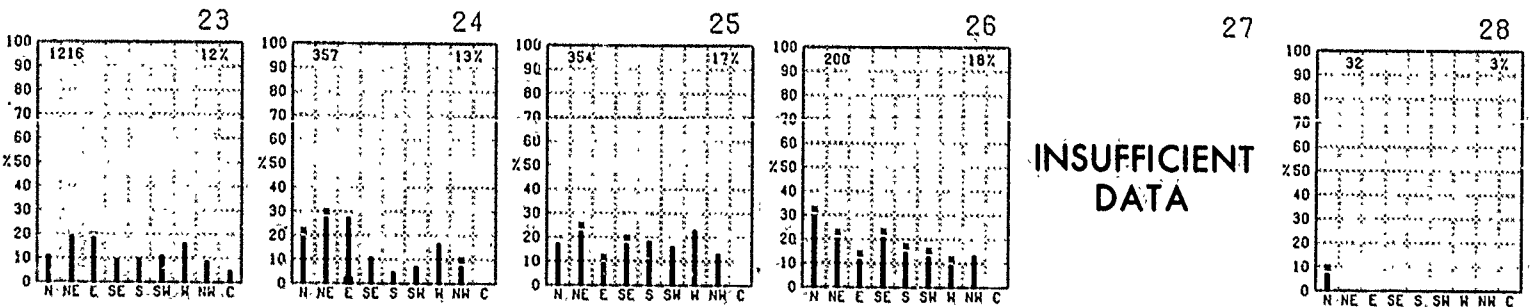
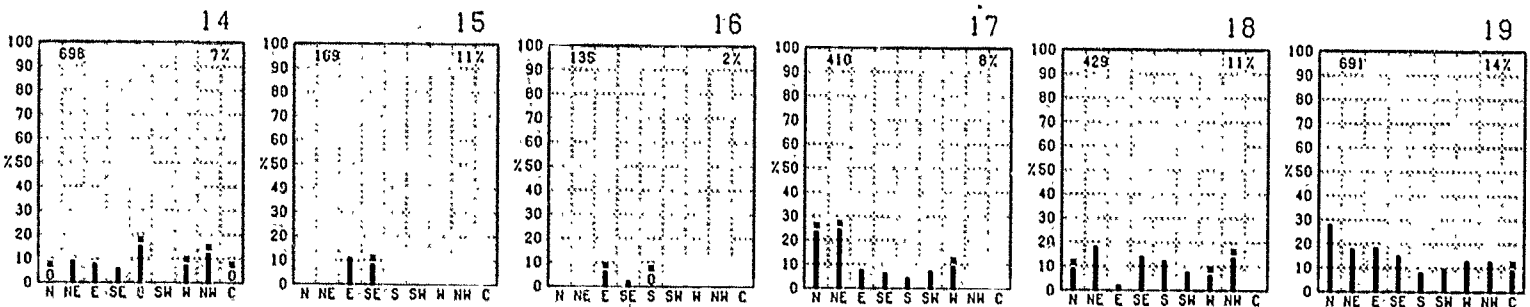
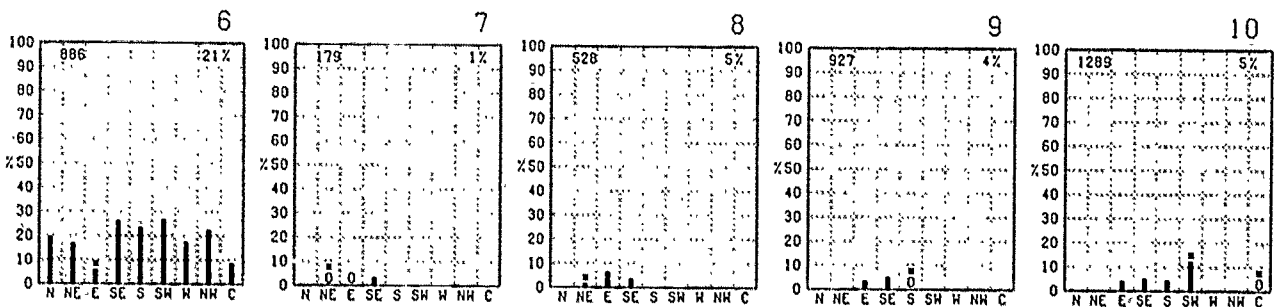
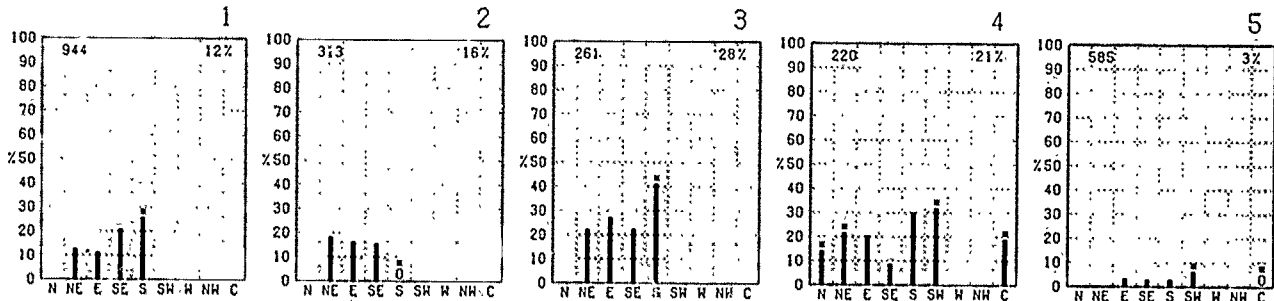
and calm that were
freezing rain and freezing

precipitation.

which 14% was liquid and

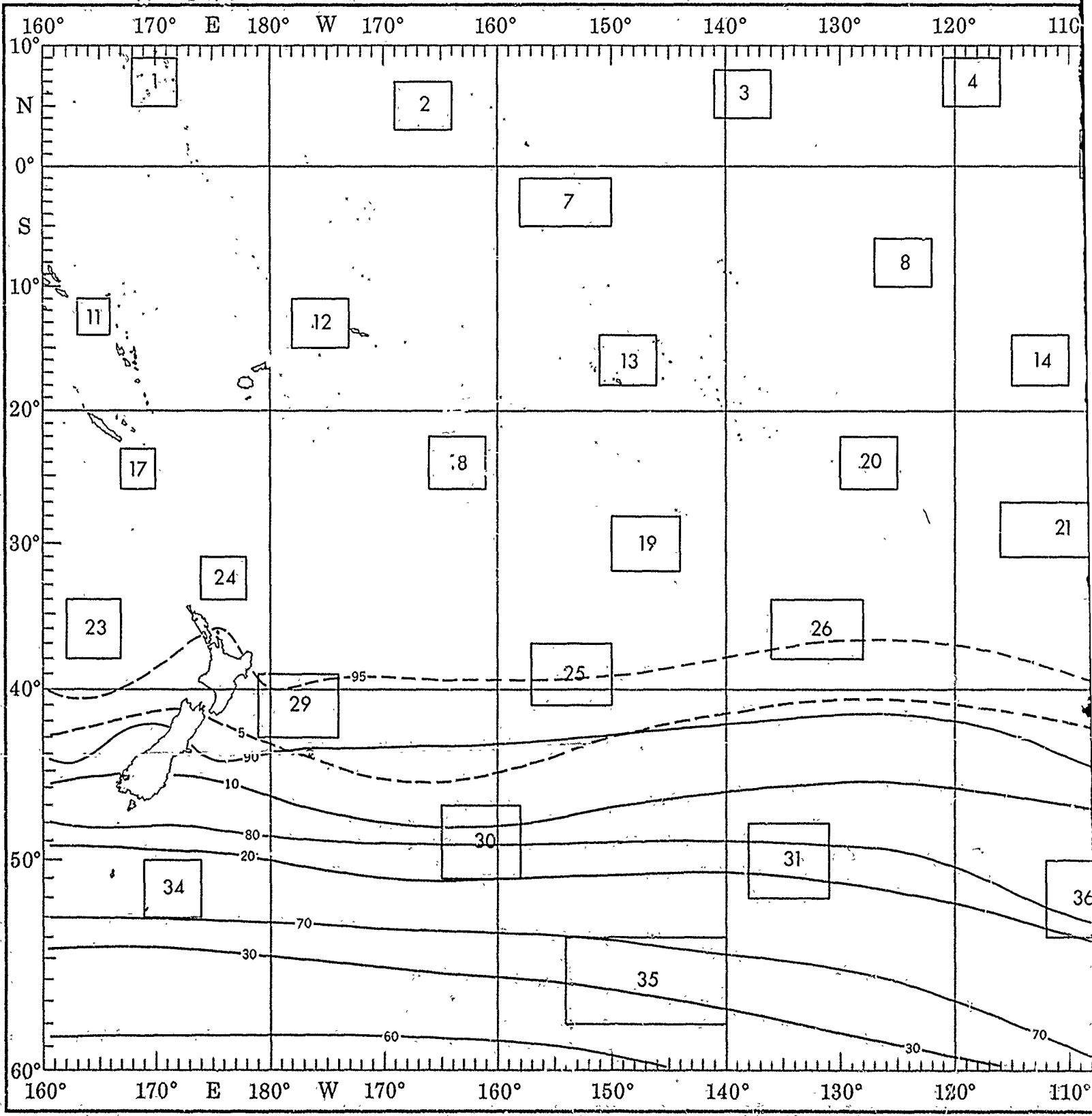
indicates that the percentage
wind direction.

finds from a given
0 observations containing
m.



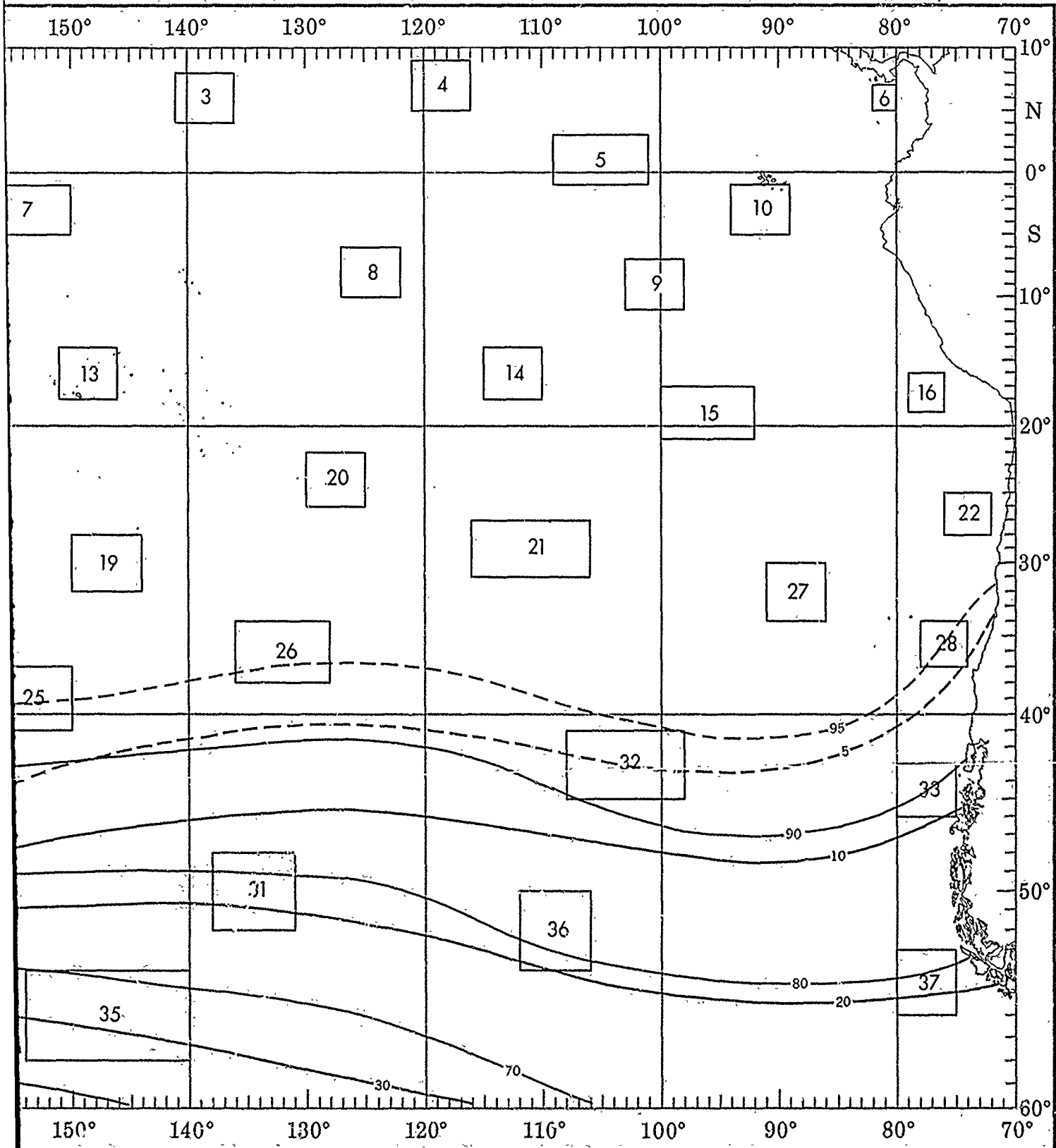
the objective compilation of available data for specified areas without regard to suspected biases.
the (opposite page) are based on all available data subjectively adjusted where bias was evident.

MAY



1

VISIBILITY

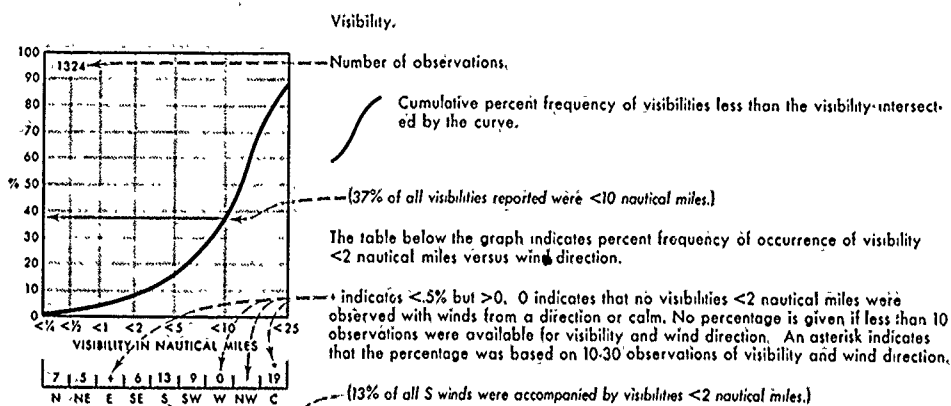


1

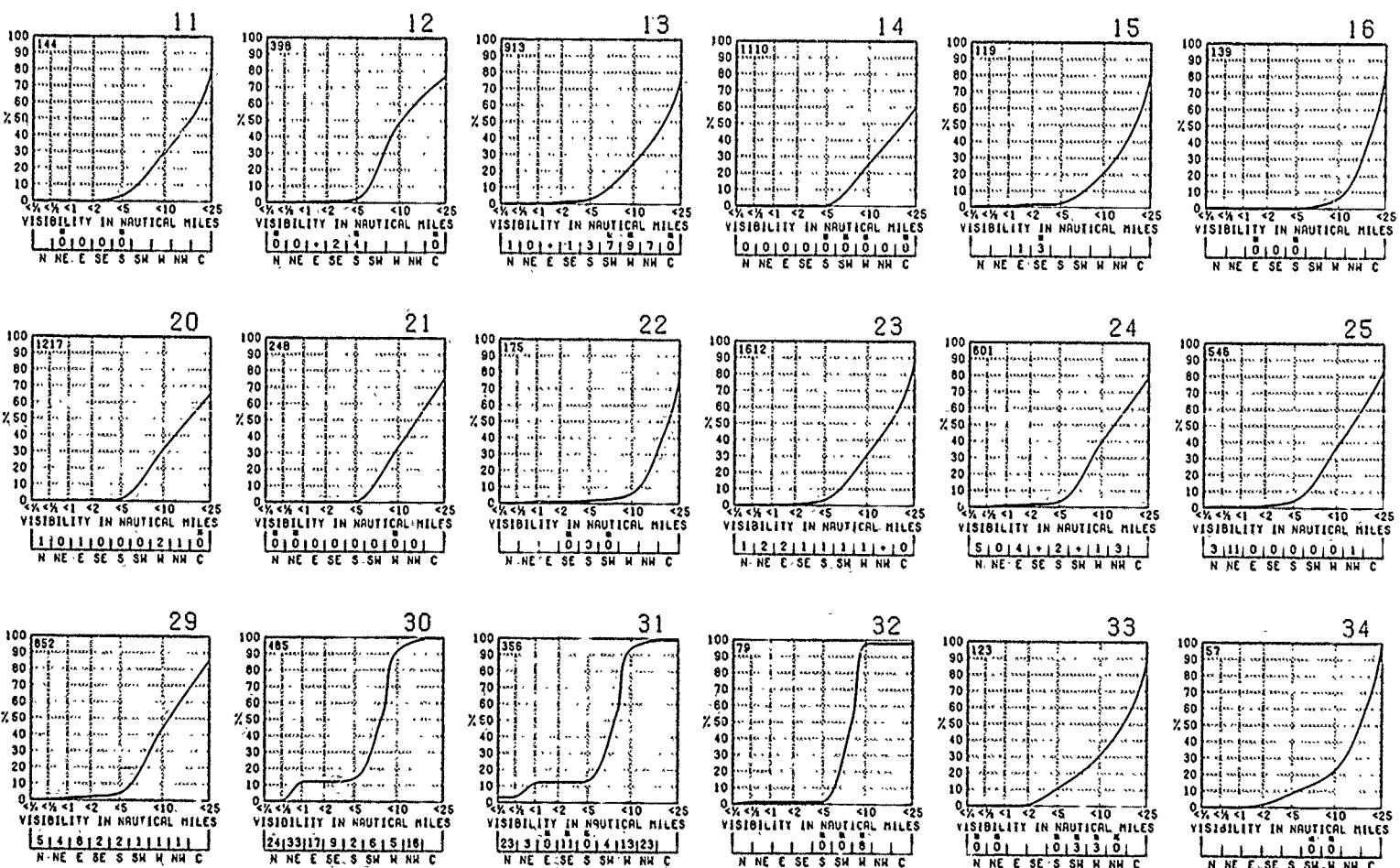
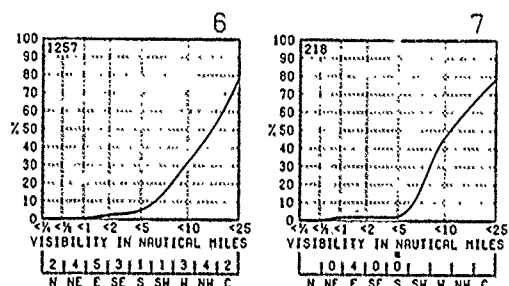
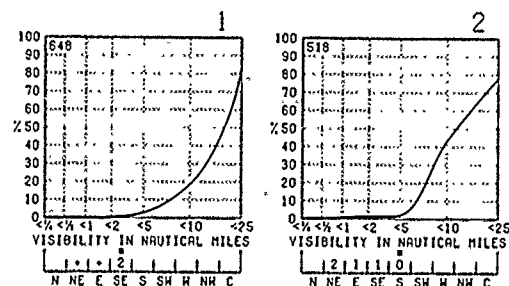
1

2

VISIBILITY

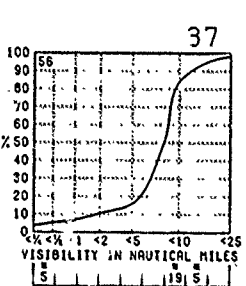
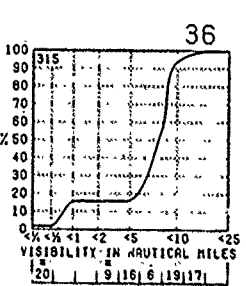
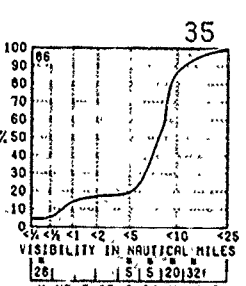
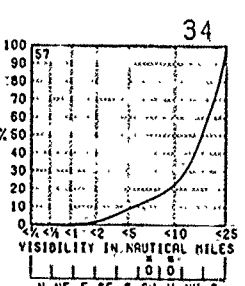
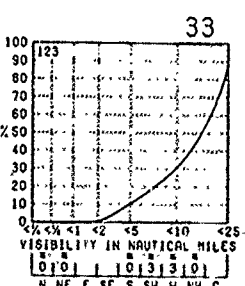
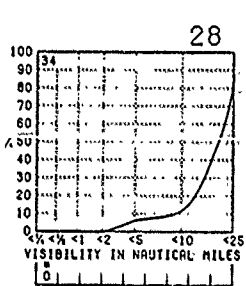
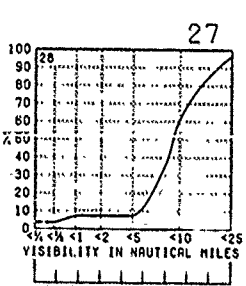
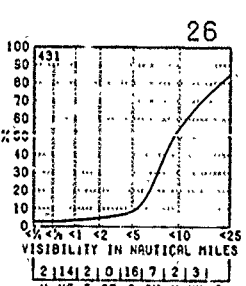
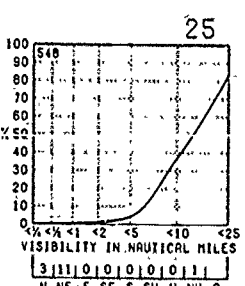
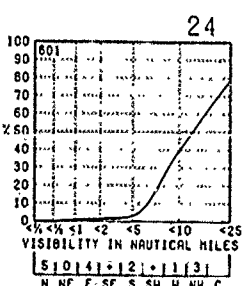
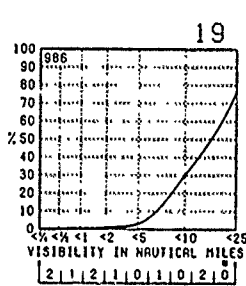
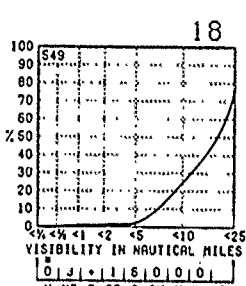
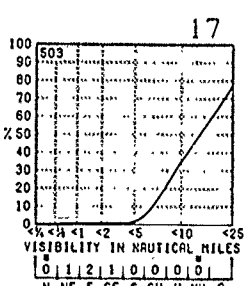
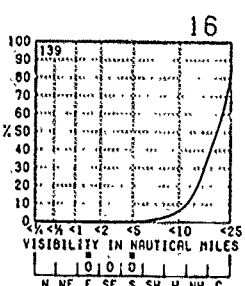
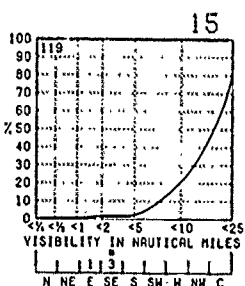
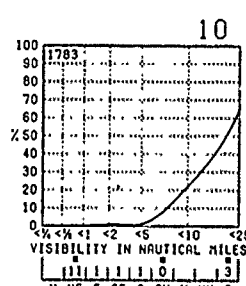
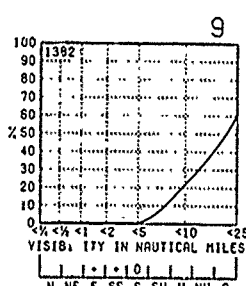
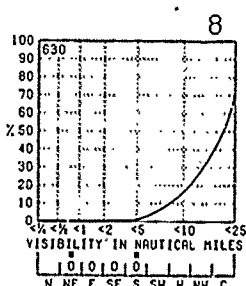
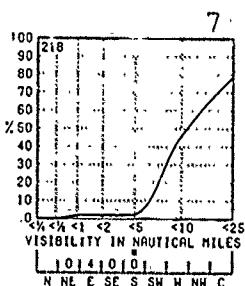
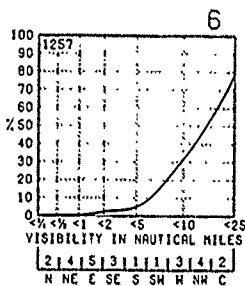
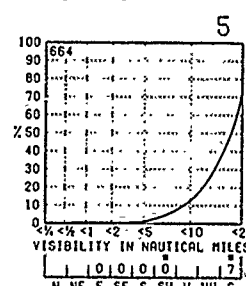
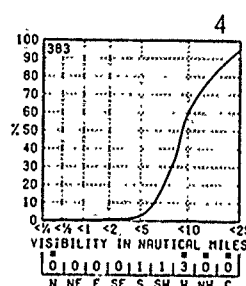
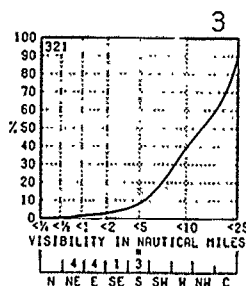
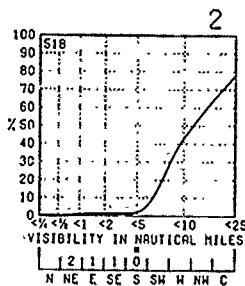
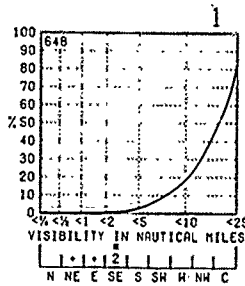


BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles
RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

MAY



than the visibility intersect.

occurrence of visibility

2 nautical miles were
age is given if less than 10
on. An asterisk indicates
visibility and wind direction.

total miles.)

32

100
90
80
70
60
50
40
30
20
10
0

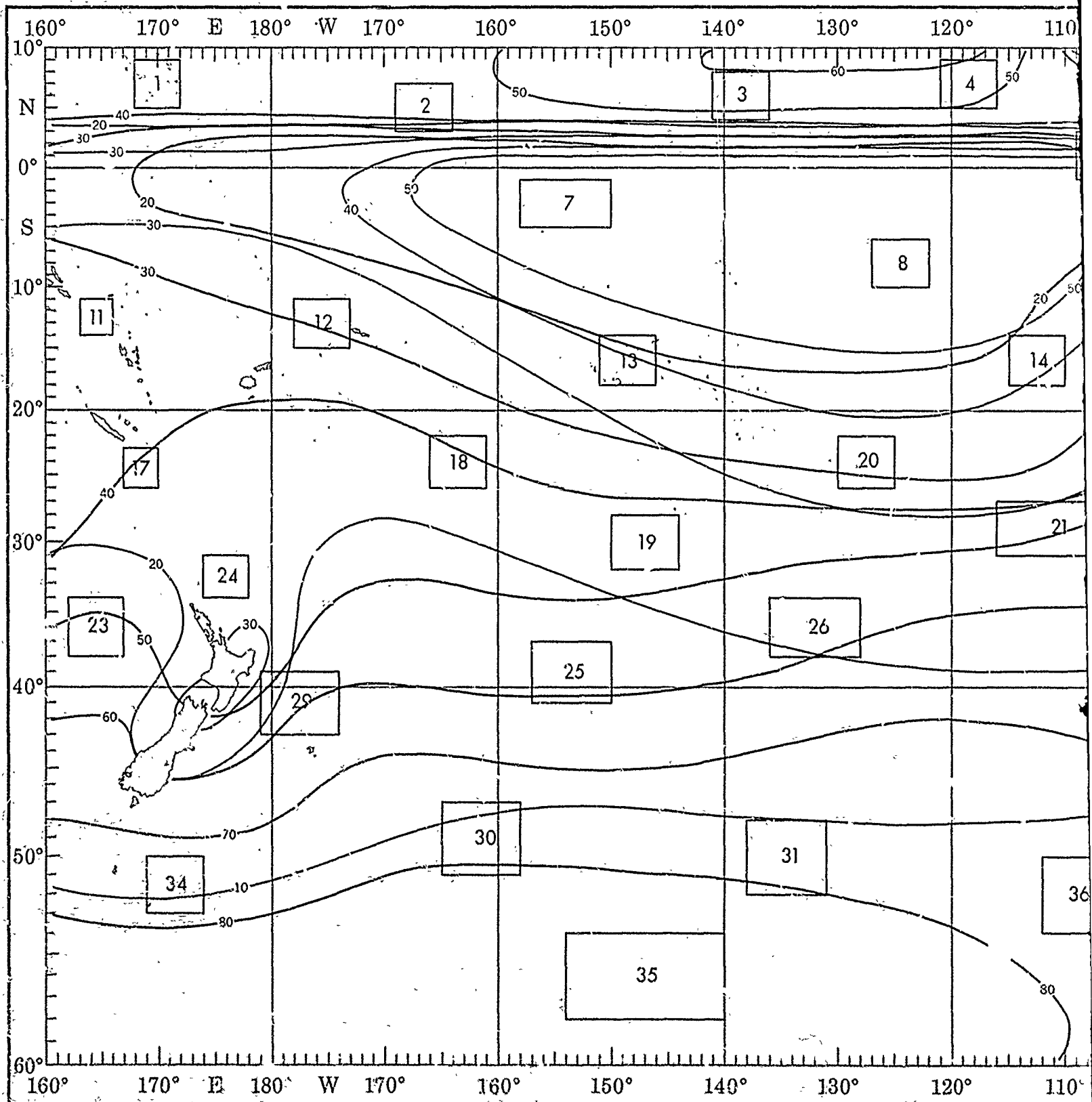
%

0.4 0.5 1.0 2.5
VISIBILITY IN NAUTICAL MILES

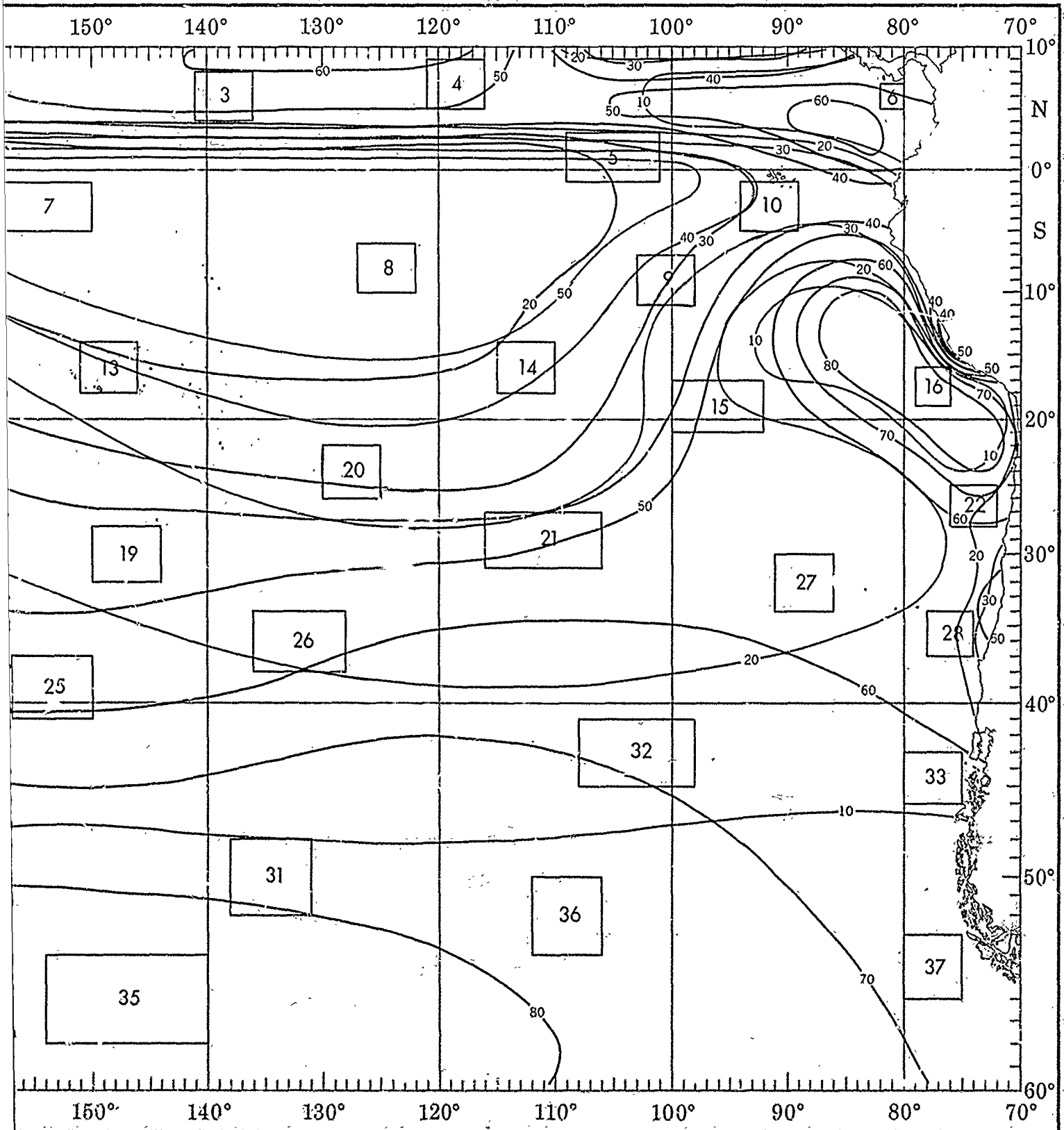
N NF F SP S SUH NW C

The objective compilation of available data for specified areas without regard to suspected biases; the data (opposite page) are based on all available data subjectively adjusted where bias was evident.

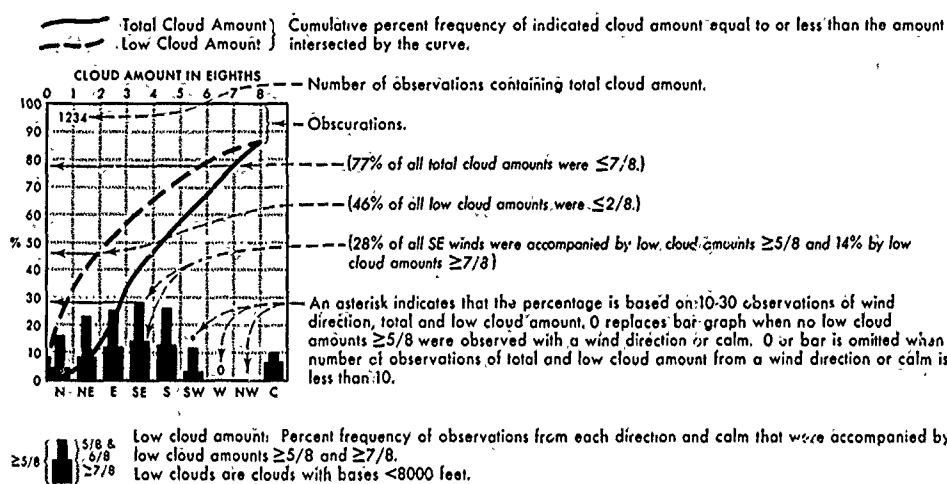
MAY



CLOUD COVER

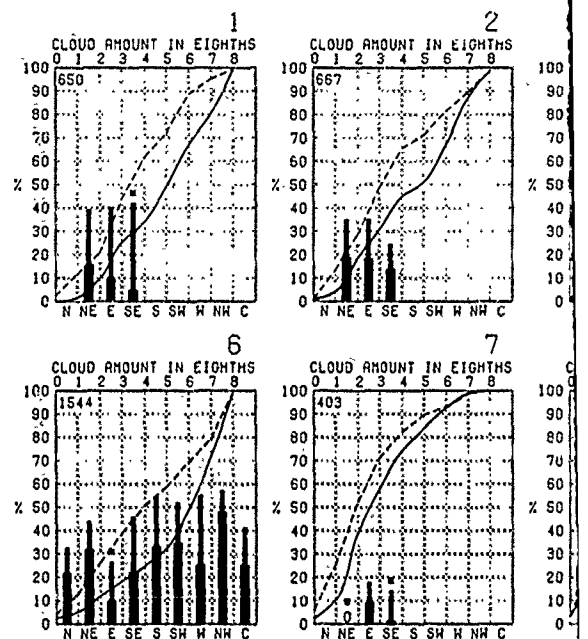


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

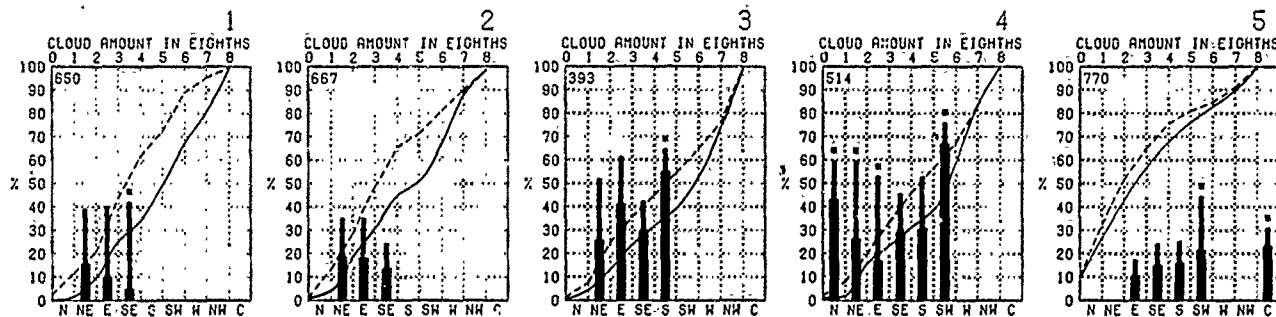
RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard to sus. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

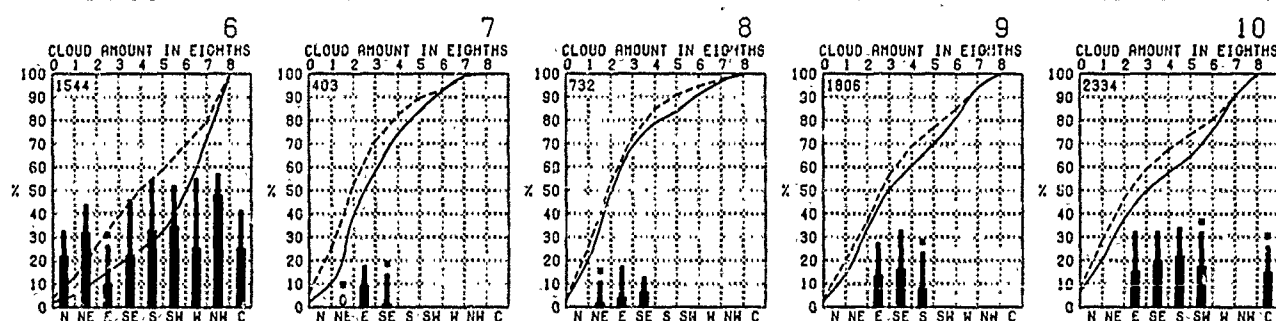
MAY

equal to or less than the amount

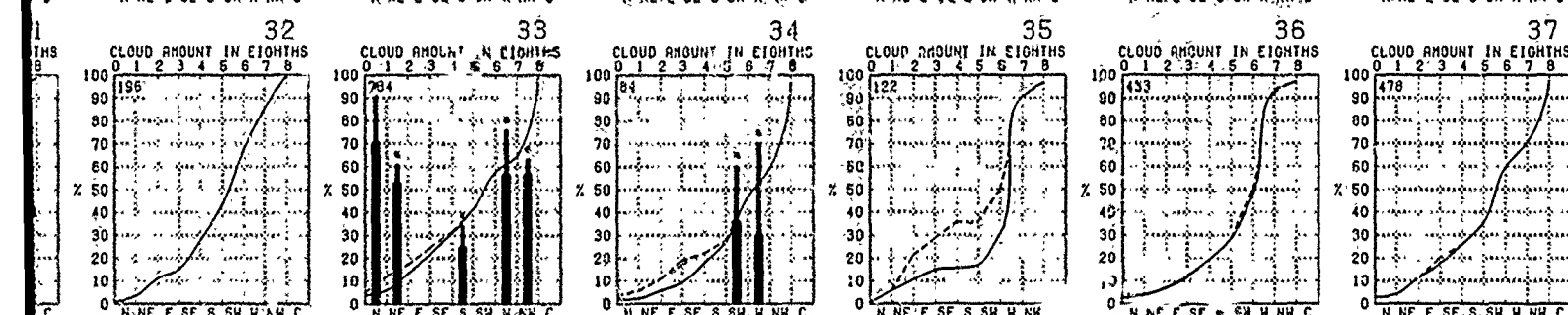
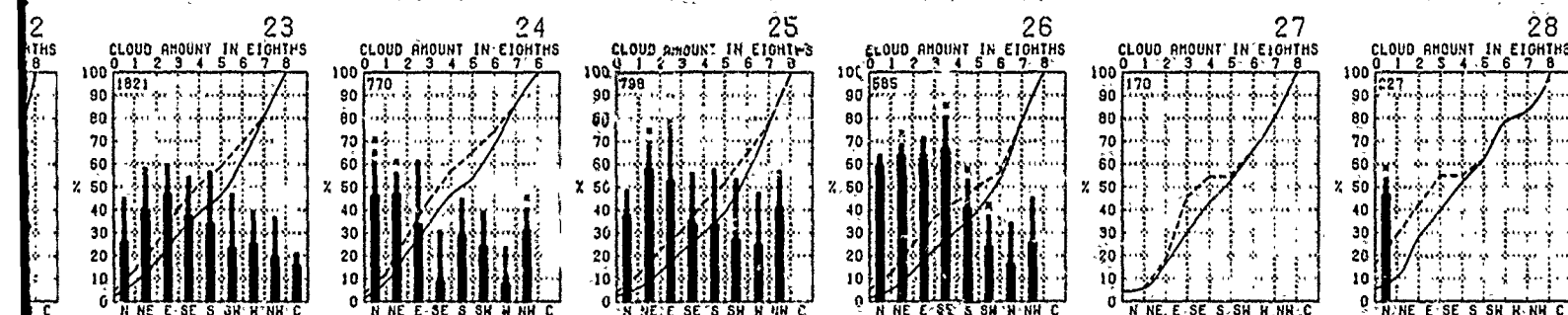
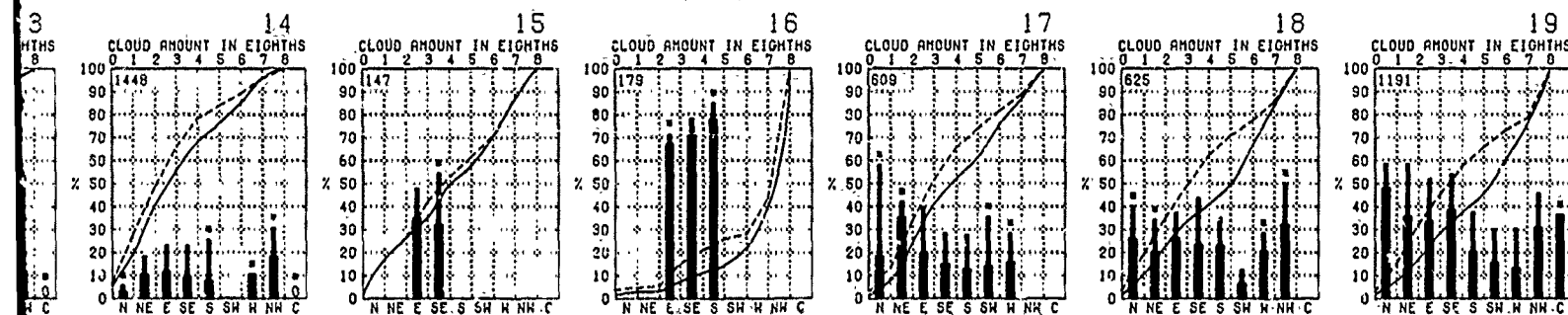


counts $\geq 5/8$ and 14% by low

30 observations of wind
graph when no low cloud
alm. 0 or bar is omitted when
from a wind direction or calm is



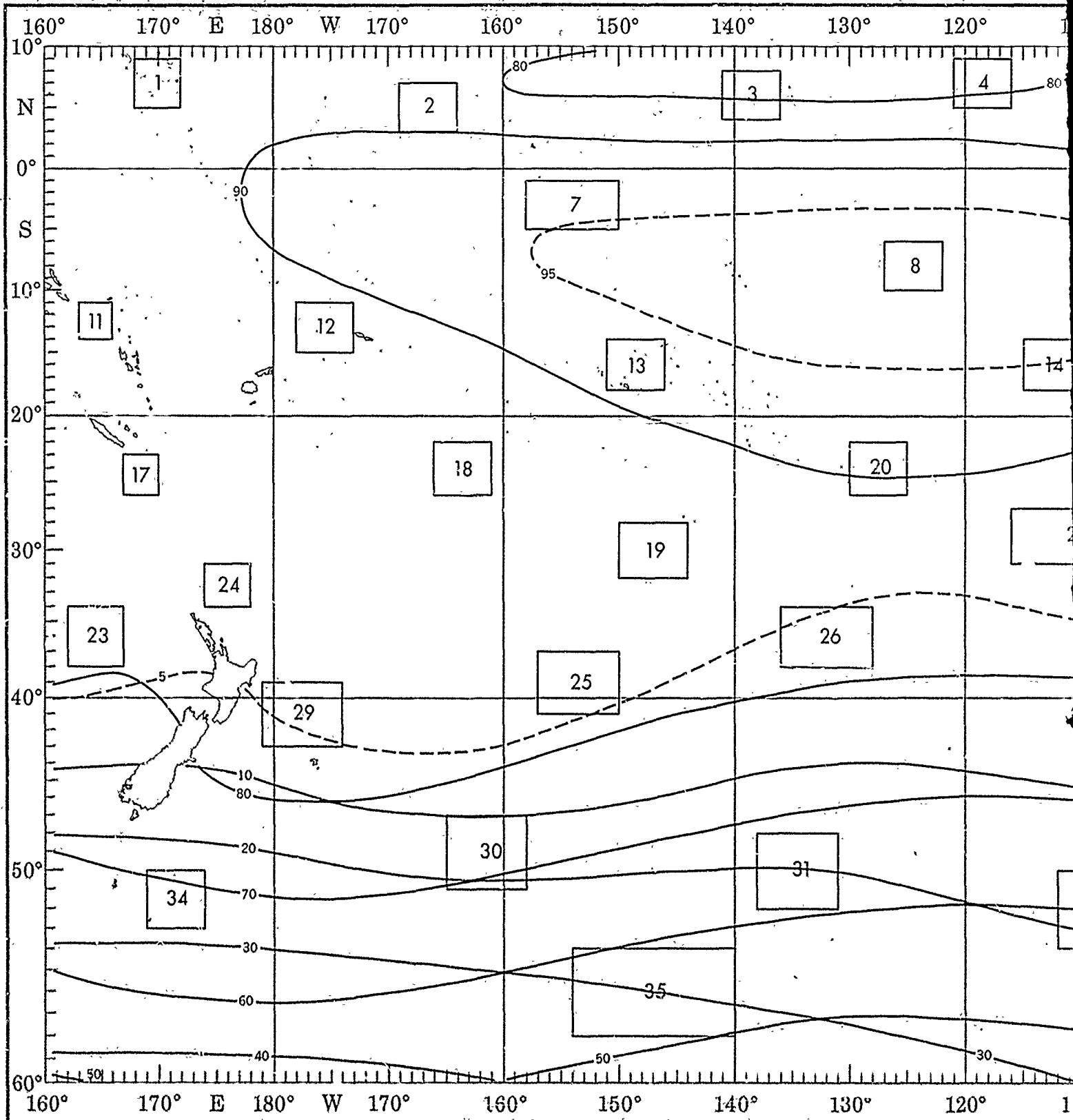
alm that were accompanied by



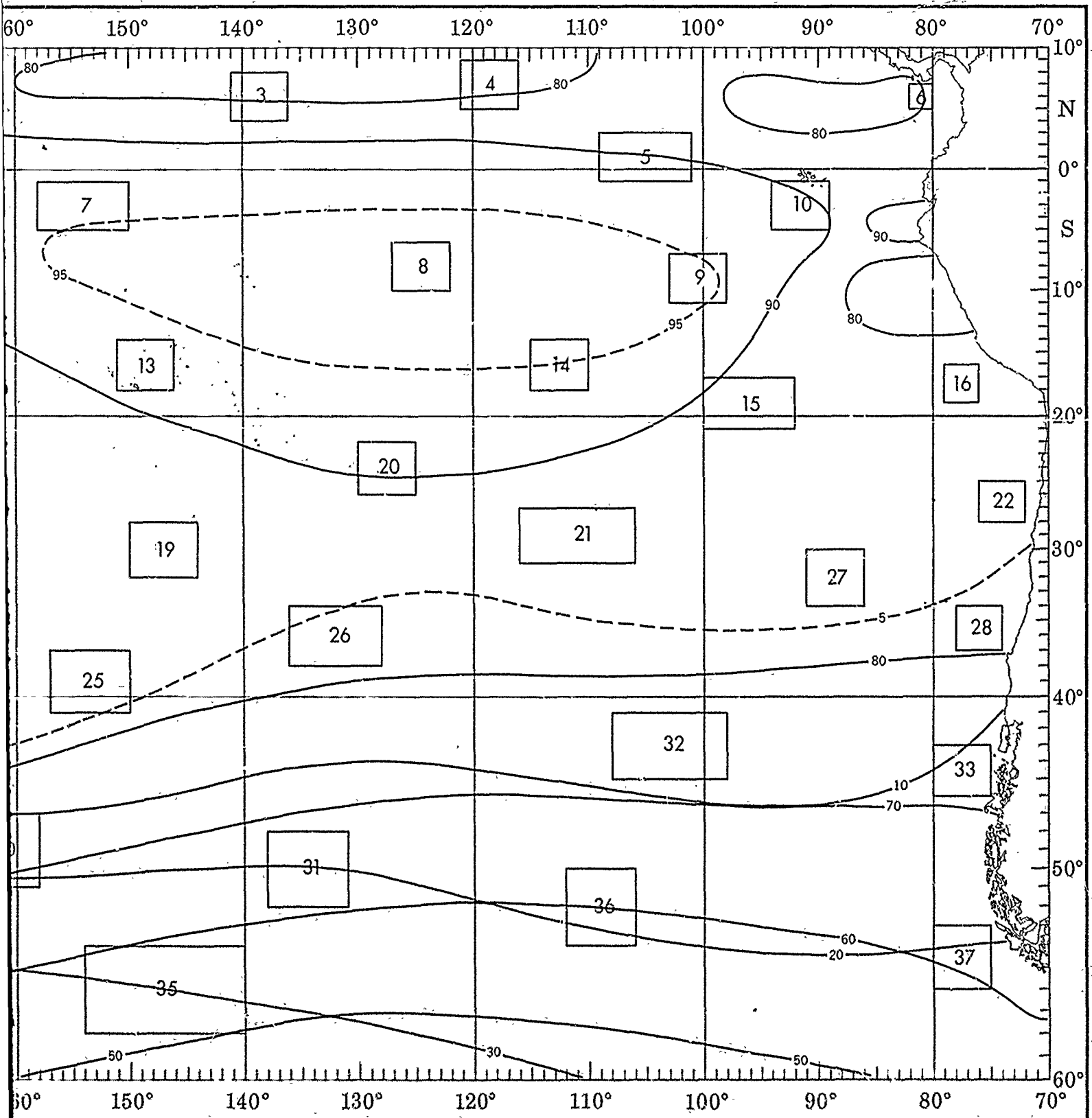
the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

2

MAY



CEILING AND VISIBILITY



1

1

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Obscurements are included under ceiling '0' < 15'.

'N C' (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles)

++ indicates < 5% but > 0.

Number of observations.

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	3	13	64
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	4
20<35	0	0	1	1	2	2
10<20	0	0	1	1	2	1
6<10	0	0	1	1	2	1
3<6	0	0	1	1	2	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

334

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	10	53
50<80	0	0	0	0	1	0
35<50	0	0	0	0	0	0
20<35	0	0	0	0	1	2
10<20	0	0	0	1	4	9
6<10	0	0	0	2	7	10
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

123

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	2	7	57
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	2
20<35	0	0	0	0	1	4
10<20	0	0	0	0	4	10
6<10	0	0	0	0	2	7
3<6	0	0	0	0	2	2
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

234

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	49
50<80	0	0	0	0	0	1
35<50	0	0	0	0	1	3
20<35	0	0	0	0	2	4
10<20	0	0	0	1	3	14
6<10	0	0	0	1	4	9
3<6	0	0	0	1	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

916

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	1	1	82
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	1
10<20	0	0	0	0	0	10
6<10	0	0	0	0	1	3
3<6	0	0	0	0	1	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

109

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	1	7	50
50<80	0	0	0	0	0	0
35<50	0	0	0	0	1	5
20<35	0	0	0	0	2	7
10<20	0	0	0	0	3	8
6<10	0	0	0	2	3	10
3<6	0	0	0	0	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

103

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	69
50<80	0	0	0	0	0	0
35<50	0	0	0	0	1	1
20<35	0	0	1	0	0	3
10<20	0	0	0	0	1	8
6<10	0	0	0	1	4	8
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

136

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	8	69
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	0
20<35	0	0	0	0	2	3
10<20	0	0	1	1	3	6
6<10	0	0	0	0	1	2
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

716

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	78
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	0	4
10<20	0	0	0	0	1	9
6<10	0	0	0	0	0	3
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

789

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	53
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	2
20<35	0	0	0	0	0	4
10<20	0	0	0	0	0	10
6<10	0	0	0	1	1	11
3<6	0	0	0	0	0	3
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

99

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	18
50<80	0	0	0	0	0	2
35<50	0	0	0	0	0	2
20<35	0	0	0	0	0	9
10<20	0	0	0	0	2	38
6<10	0	0	0	0	2	20
3<6	0	0	0	0	1	1
1.5<3	0	0	0	0	0	3
0<1.5	0	0	0	0	0	1

117

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	2	73
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	3
20<35	0	0	0	0	0	4
10<20	0	0	0	0	2	10
6<10	0	0	0	0	1	4
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

823

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	1	65
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	2
20<35	0	0	0	0	0	10
10<20	0	0	0	0	2	14
6<10	0	0	0	0	1	2
3<6	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

167

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	1	0	0	2	35
50<80	0	0	0	0	0	1
35<50	0	0	0	0	1	3
20<35	0	0	0	0	0	9
10<20	0	0	0	0	0	31
6<10	0	0	0	0	2	14
3<6	0	0	0	1	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

147

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	3	48
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	2
20<35	0	0	0	0	1	7
10<20	0	0	0	1	5	19
6<10	0	0	0	1	3	7
3<6	0	0	0	0	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

1165

LOW CLOUD CEILING	VISIBILITY					
	<1/2	1/2	1	2	5	≥ 10
NC	0	0	0	0	4	53
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	6
10<20	0	0	0	1	5	15
6<10	0	1	0	1	2	6
3<6	0	0	0	0	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

346

		VISIBILITY						25
		<1/2	1/2	1	2	5	10	
LOW CLOUD CEILING	NC	0	0	0	+	3	40	
	50<80	0	0	0	0	0	+	
	35<50	0	0	0	+	1	5	
	20<35	0	0	0	0	2	10	
	10<20	0	0	0	1	5	16	
	6<10	0	0	0	2	4	3	
	3<6	0	0	0	1	+	+	
	1.5<3	0	0	0	0	0	0	
0<1.5	0	+	0	0	1	0		

MAY

gs (hundreds of feet)

when low cloud amount

tes of $N_h < 5/8$

th visibility ≥ 5 but < 10

≥ 5 nautical miles

1

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	10	53
50+80	0	0	0	0	1	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	1	2
10+20	0	0	0	0	1	4
6+10	0	0	0	2	7	10
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

123

2

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	2	7	57
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	2
20+35	0	0	0	0	1	4
10+20	0	0	0	0	4	10
6+10	0	0	0	0	2	7
3+6	0	0	0	0	2	2
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

234

3

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	4	43
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	1	3
10+20	0	1	0	1	9	18
6+10	0	1	0	2	5	5
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	1	0

229

4

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	1	2	46
50+80	0	0	0	0	1	0
35+50	0	0	0	0	0	1
20+35	0	0	0	1	2	3
10+20	0	0	1	1	6	13
6+10	0	0	0	0	5	13
3+6	0	0	0	1	1	2
1.5+3	0	0	0	1	0	0
0+1.5	0	0	0	0	1	0

182

5

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	2	75
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	2
10+20	0	0	0	0	0	1
6+10	0	0	0	0	1	6
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

543

6

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	49
50+80	0	0	0	0	0	1
35+50	0	0	0	0	1	3
20+35	0	0	0	0	2	4
10+20	0	0	0	1	3	14
6+10	0	0	0	1	4	9
3+6	0	0	0	1	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

916

7

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	1	1	82
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	1
10+20	0	0	0	0	0	10
6+10	0	0	0	0	1	3
3+6	0	0	0	0	1	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

109

8

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	1	85
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	2
10+20	0	0	0	0	0	7
6+10	0	0	0	1	1	3
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

504

9

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	1	69
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	4
20+35	0	0	0	0	1	7
10+20	0	0	0	0	1	13
6+10	0	0	0	0	0	3
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

1010

10

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	2	66
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	2
20+35	0	0	0	0	0	6
10+20	0	0	0	0	1	12
6+10	0	0	0	0	1	6
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

1349

14

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	1	78
50+80	0	0	0	0	0	0
35+50	0	0	0	0	1	2
20+35	0	0	0	0	0	4
10+20	0	0	0	0	1	9
6+10	0	0	0	0	0	3
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

789

15

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	4	53
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	2
20+35	0	0	0	0	0	4
10+20	0	0	0	0	0	10
6+10	0	0	0	1	1	11
3+6	0	0	0	0	0	3
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

99

16

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	18
50+80	0	0	0	0	0	2
35+50	0	0	0	0	0	2
20+35	0	0	0	0	0	9
10+20	0	0	0	0	2	38
6+10	0	0	0	0	2	20
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	3
0+1.5	0	0	0	0	0	1

117

17

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	63
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	6
10+20	0	0	0	1	1	13
6+10	0	0	0	1	3	5
3+6	0	0	0	0	1	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

272

18

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	2	61
50+80	0	0	0	0	0	1
35+50	0	0	0	0	0	1
20+35	0	0	0	0	0	7
10+20	0	0	0	0	1	16
6+10	0	0	0	0	3	6
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

367

23

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	48
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	2
20+35	0	0	0	0	1	7
10+20	0	0	0	1	5	19
6+10	0	0	0	1	3	7
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

1165

24

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	4	53
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	1
20+35	0	0	0	0	1	6
10+20	0	0	0	1	5	15
6+10	0	1	0	1	2	6
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

346

25

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	40
50+80	0	0	0	0	0	0
35+50	0	0	0	0	1	5
20+35	0	0	0	0	2	10
10+20	0	0	0	1	5	16
6+10	0	0	0	2	4	9
3+6	0	0	0	1	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	1	0

378

26

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	3	41
50+80	0	0	0	0	0	1
35+50	0	0	1	1	1	4
20+35	0	0	0	0	0	8
10+20	0	0	0	1	5	15
6+10	0	0	0	2	6	7
3+6	0	0	0	2	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

239

27

VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	0	55
50+80	0	0	0	0	0	0
35+50	0	0	0	0	0	0
20+35	0	0	0	0	0	45
10+20	0	0	0	0	0	0
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

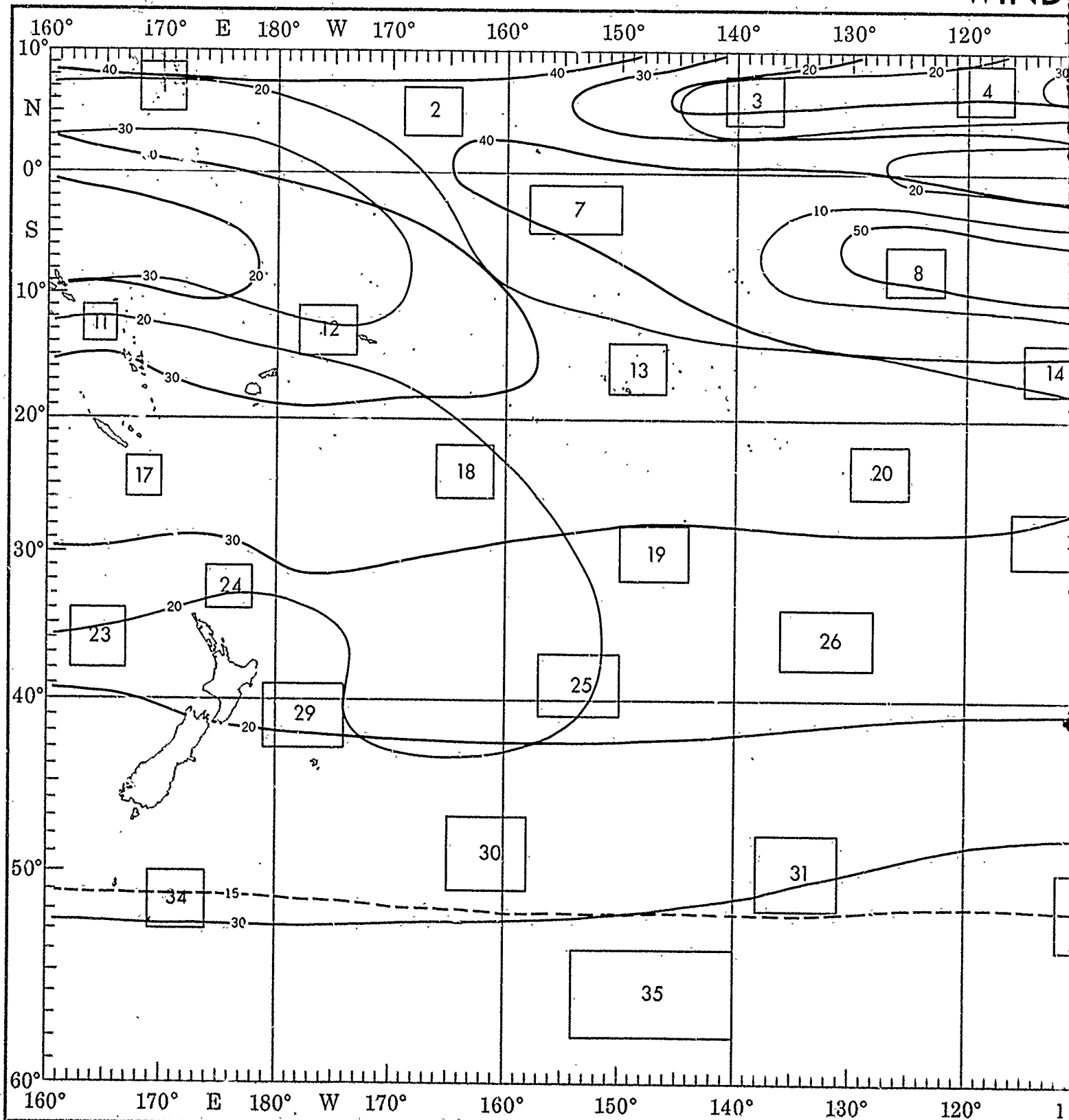
11

33

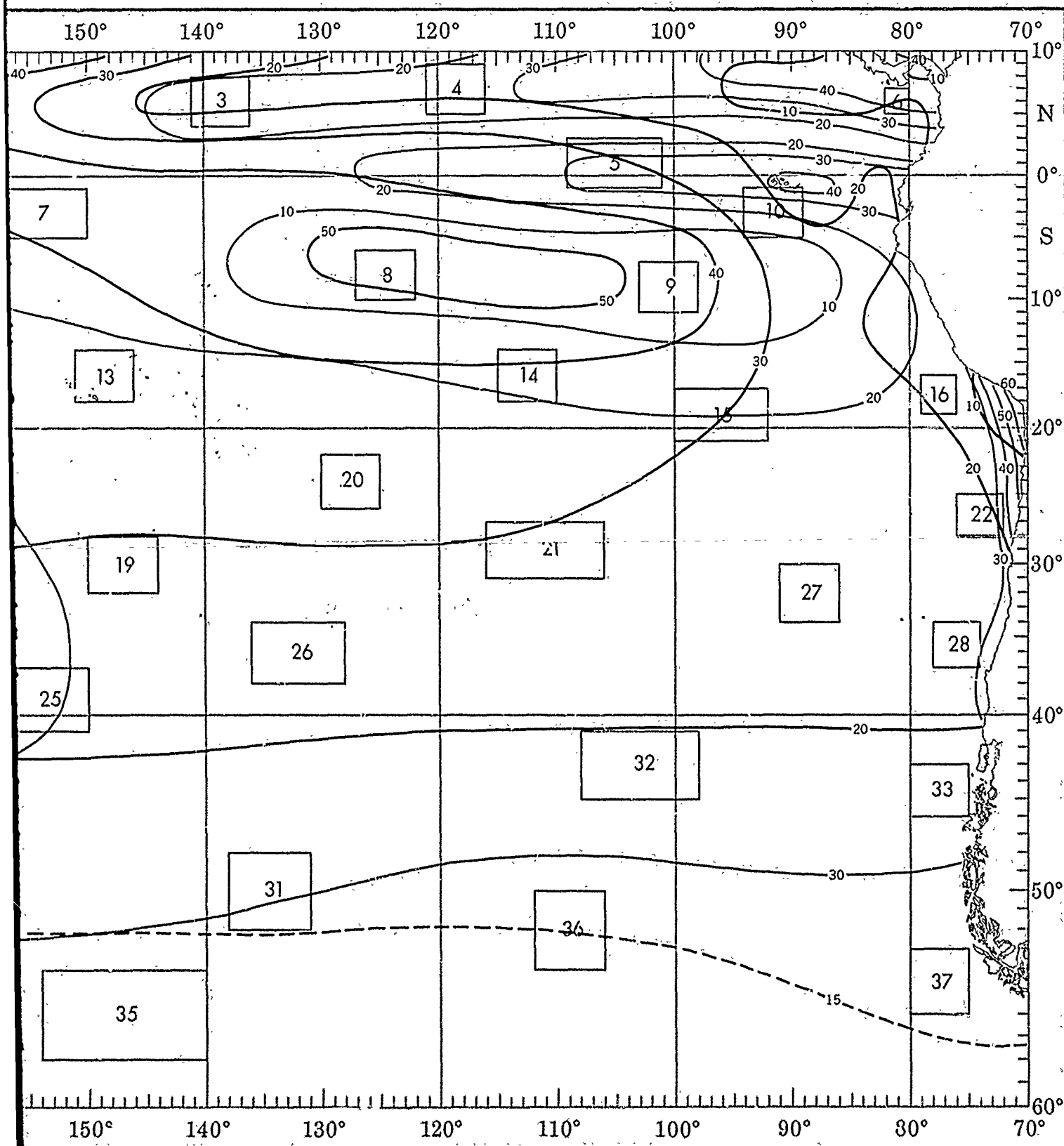
VISIBILITY	$\frac{1}{2}$	$\frac{3}{4}$	1-2	2-5	5-10	≥ 10
NC	0	0	0	0	5	2

MAY

WIND



WIND-VISIBILITY-CLOUDINESS



2

1

2

LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbj) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (knots)

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	1	1	0
<6 & OR <2	2	2	1	1
Vsbj <2	1	2	1	1
<10 & OR <5	3	4	2	1
<20 & OR <10	8	9	6	5
Vsbj >5	9	11	12	3
>50 & >25	12	13	15	7
NC & >10	4	2	1	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $\frac{1}{8} N_h < 5/8$.

* indicates < 5% but > 0.

1234 ← Number of observations.

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions. LCC ≥ 5000 ft., (or no LCC), Vsbj ≥ 5 nm. and Wind 11-21 kts.

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions; LCC < 300 ft., Vsbj < 1 nm., Wind < 6 or ≥ 34 kts.

Satisfactory conditions between poor and optimum

11

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	1	0
<6 & OR <2	0	1	2	0
Vsbj <2	0	0	0	0
<10 & OR <5	1	2	15	0
<20 & OR <10	1	6	23	0
Vsbj >5	5	33	54	5
>50 & >25	4	23	27	3
NC & >10	4	21	23	3

102

12

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	1	0	0
<6 & OR <2	0	1	1	0
Vsbj <2	0	0	1	0
<10 & OR <5	1	4	11	0
<20 & OR <10	1	9	14	0
Vsbj >5	13	40	41	3
>50 & >25	11	30	27	3
NC & >10	11	30	26	2

135

13

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	+	+	+
<6 & OR <2	+	1	1	+
Vsbj <2	0	+	1	+
<10 & OR <5	+	2	3	+
<20 & OR <10	1	6	8	1
Vsbj >5	11	46	38	3
>50 & >25	9	38	29	1
NC & >10	9	35	25	1

707

14

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	+	0
<6 & OR <2	0	+	+	0
Vsbj <2	0	0	0	0
<10 & OR <5	+	1	2	+
<20 & OR <10	1	5	8	+
Vsbj >5	6	45	46	3
>50 & >25	5	37	35	2
NC & >10	5	36	35	2

785

15

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	0	0
<6 & OR <2	0	1	2	0
Vsbj <2	0	0	0	0
<10 & OR <5	1	12	13	0
<20 & OR <10	2	17	17	0
Vsbj >5	8	43	46	1
>50 & >25	6	26	24	1
NC & >10	5	25	21	1

89

16

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	1	0
<6 & OR <2	0	1	4	0
Vsbj <2	0	0	0	0
<10 & OR <5	2	12	11	2
<20 & OR <10	3	30	32	3
Vsbj >5	3	43	47	6
>50 & >25	1	10	9	1
NC & >10	1	9	8	1

117

20

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	+	0	0
<6 & OR <2	0	+	+	+
Vsbj <2	0	+	+	0
<10 & OR <5	+	2	3	+
<20 & OR <10	1	6	10	1
Vsbj >5	9	40	39	5
>50 & >25	8	37	26	4
NC & >10	8	36	26	4

815

21

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	1	0
<6 & OR <2	0	1	1	0
Vsbj <2	0	0	0	0
<10 & OR <5	0	1	2	0
<20 & OR <10	0	7	8	5
Vsbj >5	7	49	30	14
>50 & >25	7	34	19	8
NC & >10	6	34	18	7

166

22

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	0	0
<6 & OR <2	1	2	0	0
Vsbj <2	1	+	0	0
<10 & OR <5	3	13	3	0
<20 & OR <10	4	28	17	1
Vsbj >5	6	44	41	6
>50 & >25	2	12	19	6
NC & >10	2	11	18	4

144

23

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	+	0	0
<6 & OR <2	+	1	+	+
Vsbj <2	0	+	0	+
<10 & OR <5	+	3	5	4
<20 & OR <10	2	9	14	10
Vsbj >5	6	31	39	17
>50 & >25	4	19	21	7
NC & >10	4	18	20	5

1152

24

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	1	0
<6 & OR <2	0	1	1	+
Vsbj <2	0	0	0	+
<10 & OR <5	1	2	6	4
<20 & OR <10	2	7	16	7
Vsbj >5	4	35	42	13
>50 & >25	2	25	23	5
NC & >10	2	24	21	4

336

25

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	+	+	+
<6 & OR <2	0	1	1	+
Vsbj <2	0	+	0	0
<10 & OR <5	+	5	8	3
<20 & OR <10	+	11	17	9
Vsbj >5	2	27	44	18
>50 & >25	2	12	21	6
NC & >10	2	11	21	5

373

29

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	+	0	+
<6 & OR <2	0	+	1	1
Vsbj <2	0	0	0	+
<10 & OR <5	0	4	6	2
<20 & OR <10	0	7	18	12
Vsbj >5	3	23	44	21
>50 & >25	2	12	20	7
NC & >10	2	12	17	6

483

30

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	0	2
<6 & OR <2	0	2	2	2
Vsbj <2	0	0	0	2
<10 & OR <5	0	2	2	13
<20 & OR <10	0	7	9	22
Vsbj >5	0	4	22	36
>50 & >25	0	4	11	7
NC & >10	0	4	4	7

45

31

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	0	0
<6 & OR <2	0	0	5	0
Vsbj <2	0	0	0	0
<10 & OR <5	5	0	14	14
<20 & OR <10	5	10	14	24
Vsbj >5	5	19	52	19
>50 & >25	0	6	29	0
NC & >10	0	5	29	0

21

32

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	1	0	2
<6 & OR <2	0	1	3	1
Vsbj <2	0	0	1	0
<10 & OR <5	0	6	14	4
<20 & OR <10	0	9	27	9
Vsbj >5	2	19	45	23
>50 & >25	2	9	15	7
NC & >10	2	8	13	5

96

33

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	1	0	2
<6 & OR <2	0	1	3	1
Vsbj <2	0	0	1	0
<10 & OR <5	0	6	14	4
<20 & OR <10	0	9	27	9
Vsbj >5	2	19	45	23
>50 & >25	2	9	15	7
NC & >10	2	8	13	5

96

34

LCC - Vsbj	0-3	4-10	11-21	22-34
<1.5 & OR <.5	0	0	2	4
<6 & OR <2	0	2	4	4
Vsbj <2	0	0	2	0
<10 & OR <5	0	2	10	4
<20 & OR <10	0	4	15	4
Vsbj >5	0	17	44	23
>50 & >25	0	10	10	4
NC & >10	0	8	6	4

52

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

VISIBILITY-WIND

MAY

ity (Vsby) in nautical

h) when low cloud amount

ing <1000 feet and/or

ferences of $N_h < 5/8$

and Wind 11-21 kts.

ditions LCC <300 ft.

1

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	1	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	2	8	9	1
<20 4 OR <5	3	14	17	1
VSBY >5	7	31	56	2
>50 4 >5	4	18	39	2
NC 4 >10	4	16	32	1

121

2

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	1	6	6	0
<20 4 OR <5	1	11	16	1
VSBY >5	3	41	51	2
>50 4 >5	2	29	32	1
NC 4 >10	2	26	29	0

234

3

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	1	1	4	1
VSBY <2	0	0	0	0
<10 4 OR <2	2	6	10	2
<20 4 OR <5	2	22	22	2
VSBY >5	4	50	36	2
>50 4 >5	3	29	16	0
NC 4 >10	3	26	15	0

227

4

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	1	0	0
<6 4 OR <2	0	4	2	0
VSBY <2	0	0	1	0
<10 4 OR <2	2	16	6	1
<20 4 OR <5	3	28	13	2
VSBY >5	11	57	26	2
>50 4 >5	9	28	13	0
NC 4 >10	9	26	12	0

180

5

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	1	1	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	2	6	2	0
<20 4 OR <5	3	10	7	0
VSBY >5	11	63	25	0
>50 4 >5	7	52	18	0
NC 4 >10	7	51	17	0

541

6

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	1	3	1	0
VSBY <2	0	1	1	0
<10 4 OR <2	4	14	4	0
<20 4 OR <5	7	23	7	0
VSBY >5	21	60	15	0
>50 4 >5	13	32	8	0
NC 4 >10	13	29	7	0

866

7

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	1	1	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	1	0	4	0
<20 4 OR <5	1	2	13	0
VSBY >5	2	50	42	6
>50 4 >5	1	47	29	6
NC 4 >10	1	47	28	6

109

8

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	3	2	0
<20 4 OR <5	0	5	6	0
VSBY >5	1	35	61	1
>50 4 >5	1	31	53	1
NC 4 >10	1	31	53	1

502

9

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	1	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	1	3	0
<20 4 OR <5	0	4	13	1
VSBY >5	1	30	65	4
>50 4 >5	1	23	45	2
NC 4 >10	1	22	44	2

1009

10

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	1	0
VSBY <2	0	0	0	0
<10 4 OR <2	1	6	2	0
<20 4 OR <5	1	16	5	0
VSBY >5	7	67	25	0
>50 4 >5	5	45	18	0
NC 4 >10	5	43	17	0

1339

14

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	1	2	0
<20 4 OR <5	1	5	8	0
VSBY >5	6	45	46	3
>50 4 >5	5	37	35	2
NC 4 >10	5	36	35	2

785

15

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	1	2	0
VSBY <2	0	0	0	0
<10 4 OR <2	1	12	13	0
<20 4 OR <5	2	17	17	0
VSBY >5	8	43	46	1
>50 4 >5	6	26	24	1
NC 4 >10	5	25	21	1

99

16

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	1	0
<6 4 OR <2	0	1	4	0
VSBY <2	0	0	0	0
<10 4 OR <2	2	12	11	2
<20 4 OR <5	3	30	32	3
VSBY >5	3	43	47	6
>50 4 >5	1	10	9	1
NC 4 >10	1	9	8	1

117

17

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	1	0
<6 4 OR <2	0	0	2	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	2	5	3
<20 4 OR <5	1	7	15	4
VSBY >5	6	34	49	9
>50 4 >5	4	26	31	6
NC 4 >10	3	25	29	5

268

18

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	1	1	0
VSBY <2	0	1	0	0
<10 4 OR <2	0	4	5	2
<20 4 OR <5	0	10	13	4
VSBY >5	4	41	44	7
>50 4 >5	4	29	28	2
NC 4 >10	4	29	27	2

362

23

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	1	1	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	3	5	4
<20 4 OR <5	2	9	14	10
VSBY >5	6	31	39	17
>50 4 >5	4	19	21	7
NC 4 >10	4	18	20	5

1152

24

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	1	0
<6 4 OR <2	0	1	1	0
VSBY <2	0	0	0	0
<10 4 OR <2	1	2	6	4
<20 4 OR <5	2	7	16	7
VSBY >5	4	35	42	13
>50 4 >5	2	25	23	5
NC 4 >10	2	24	21	4

336

25

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	1	1	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	5	8	3
<20 4 OR <5	0	11	17	9
VSBY >5	2	27	44	18
>50 4 >5	2	12	21	6
NC 4 >10	2	11	21	5

373

26

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	5	9	3
<20 4 OR <5	1	13	18	5
VSBY >5	2	35	38	11
>50 4 >5	1	19	19	5
NC 4 >10	1	18	18	5

239

27

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	0	0	0
<20 4 OR <5	0	0	0	0
VSBY >5	0	27	73	0
>50 4 >5	0	27	27	0
NC 4 >10	0	27	27	0

11

32

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	1	0	2
<6 4 OR <2	0	1	3	1
VSBY <2	0	0	1	0
<10 4 OR <2	0	6	14	4
<20 4 OR <5	0	9	27	9
VSBY >5	2	19	45	23
>50 4 >5	2	9	15	7
NC 4 >10	2	8	13	5

96

33

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	2	4
<6 4 OR <2	0	2	4	0
VSBY <2	0	0	2	0
<10 4 OR <2	0	2	10	4
<20 4 OR <5	0	4	15	4
VSBY >5	0	17	44	23
>50 4 >5	0	10	10	4
NC 4 >10	0	8	6	4

52

34

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	0	7	0
<20 4 OR <5	0	0	36	0
VSBY >5	0	14	50	21
>50 4 >5	0	7	14	14
NC 4 >10	0	7	14	14

14

35

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 4 OR <5	0	0	0	0
<6 4 OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 4 OR <2	0	8	23	8
<20 4 OR <5	0	15	31	8
VSBY >5	0	38	23	15
>50 4 >5	0	8	0	8
NC 4 >10	0	0	0	8

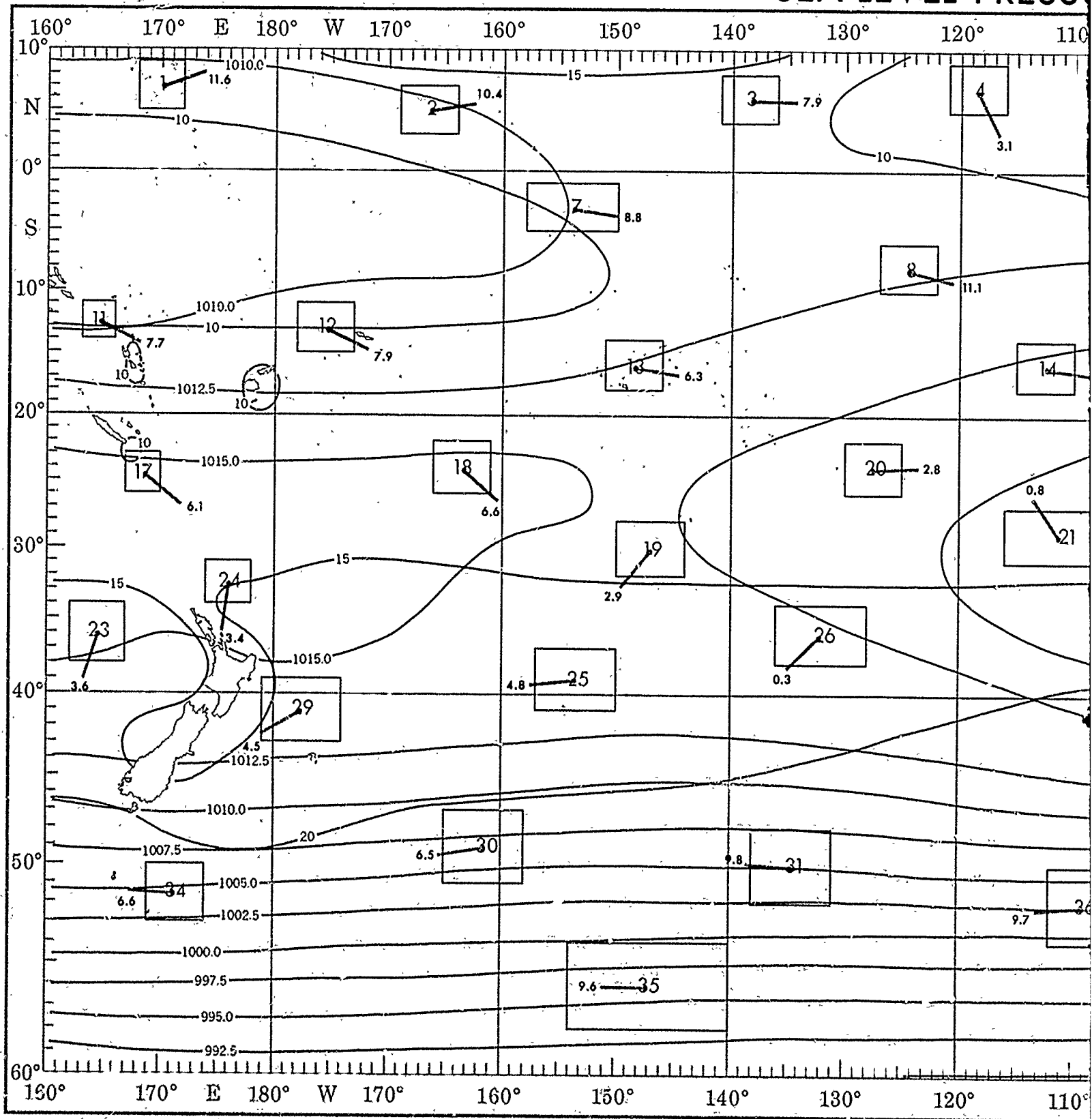
13

37

INSUFFICIENT
DATA

MAY

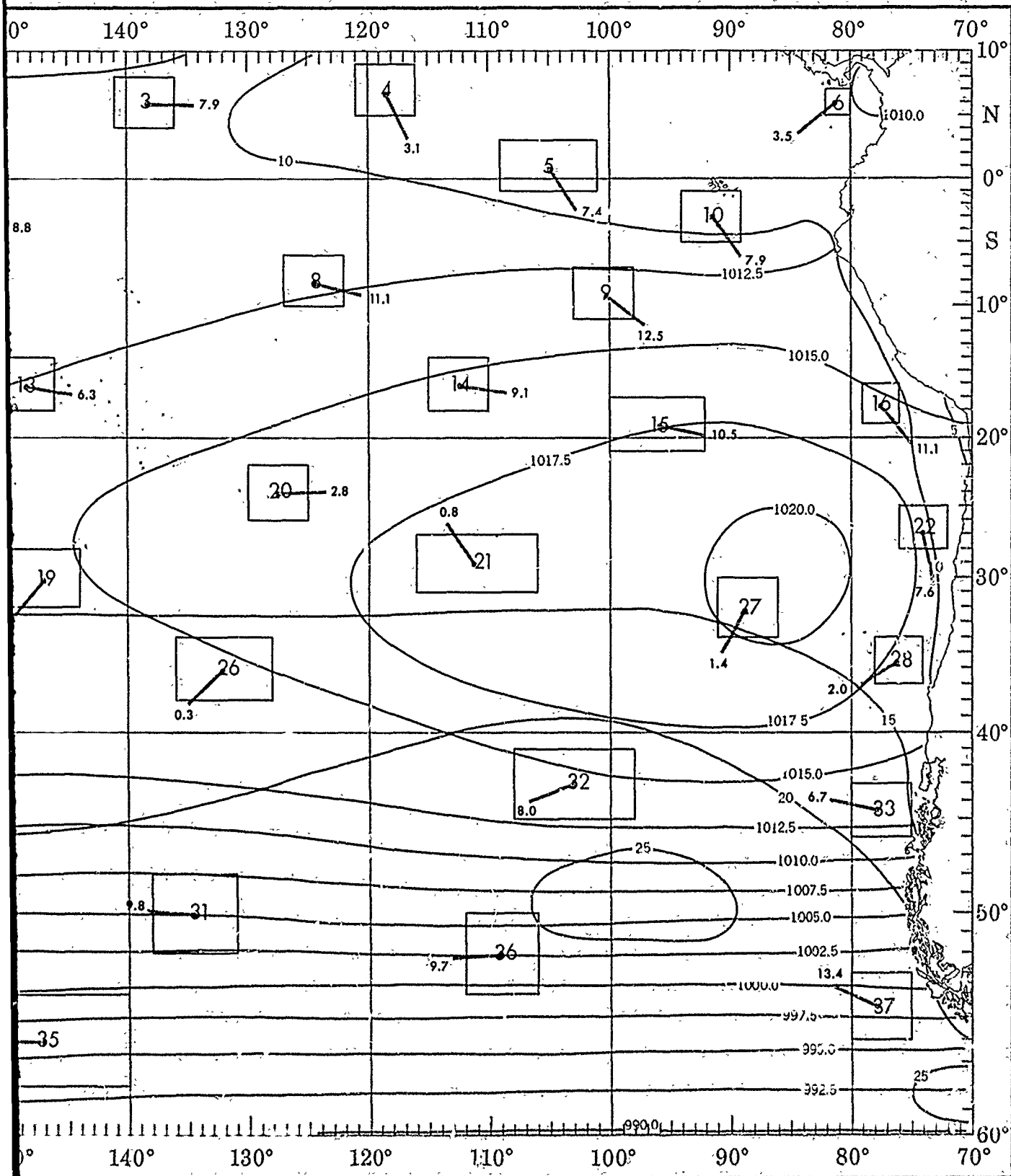
SEA LEVEL PRESSURE



2

1

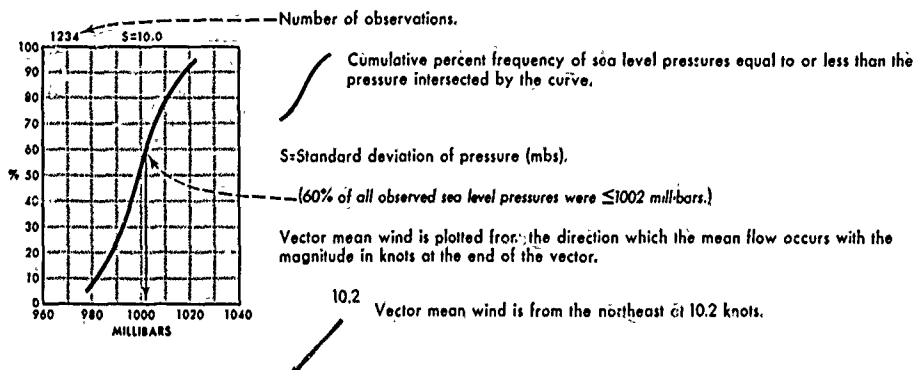
SEA LEVEL PRESSURE AND MEAN WIND



2 1 2

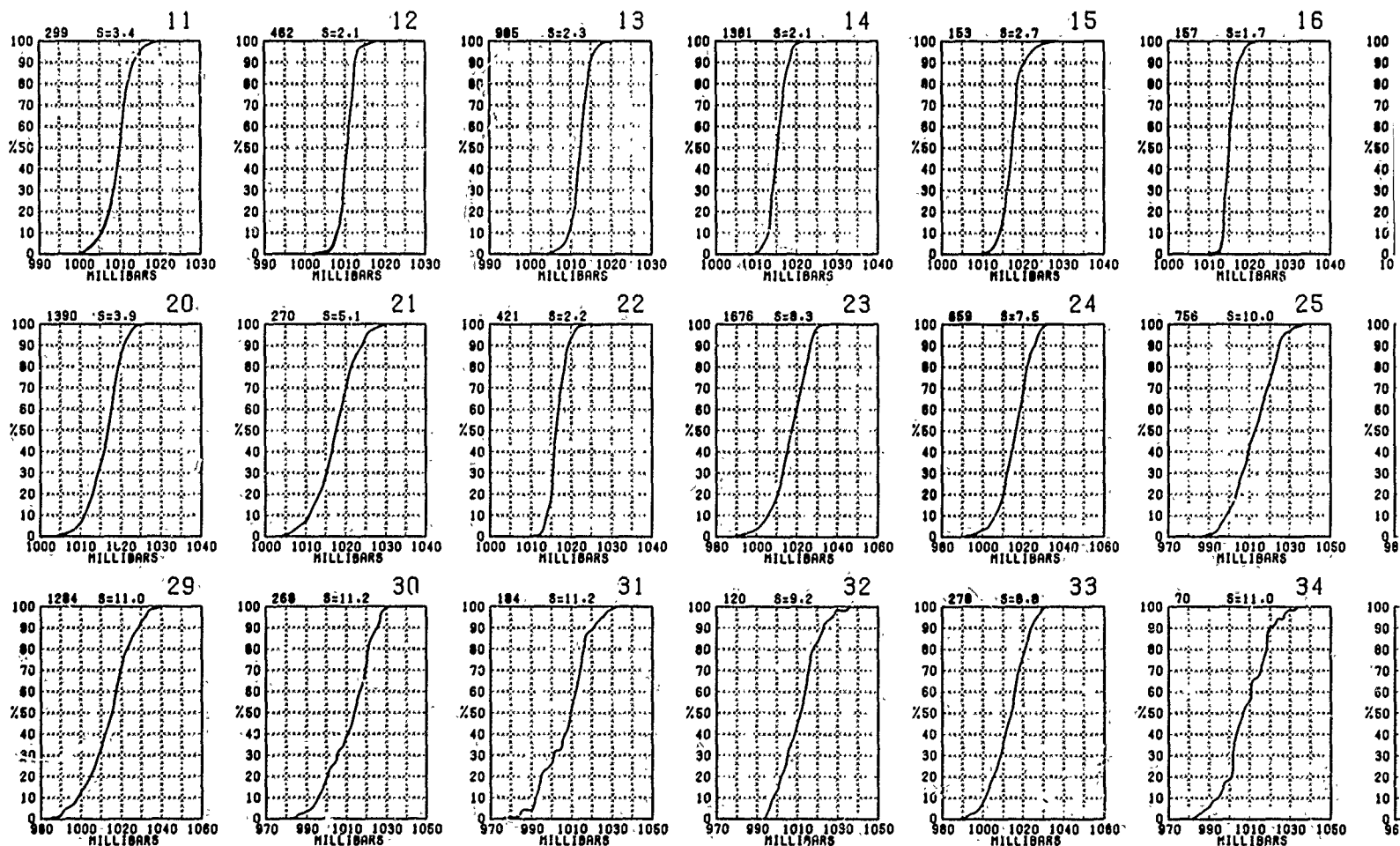
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



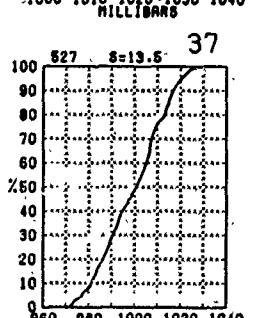
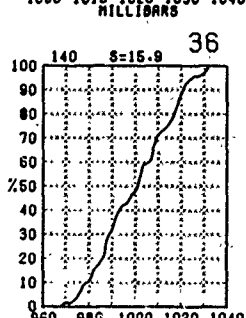
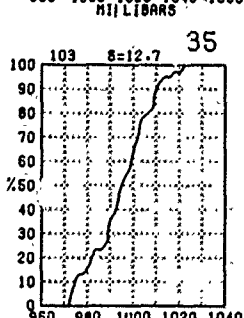
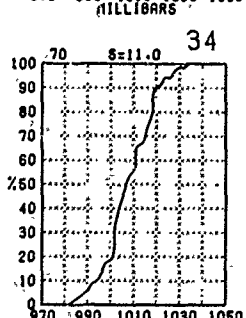
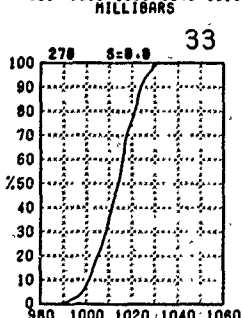
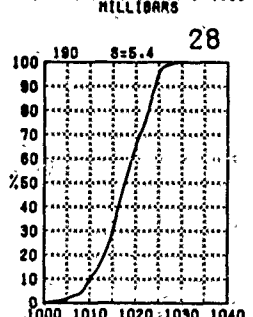
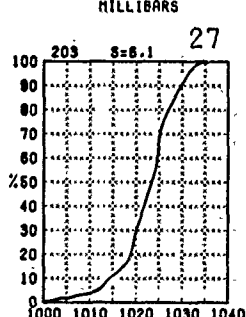
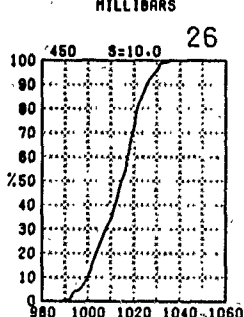
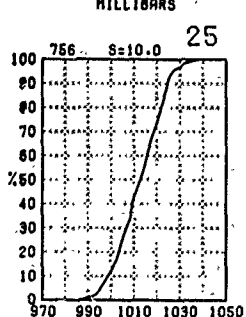
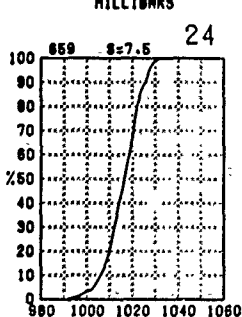
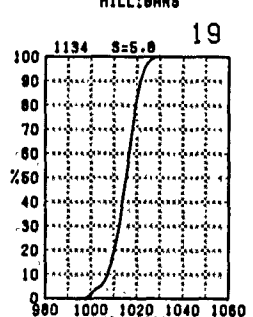
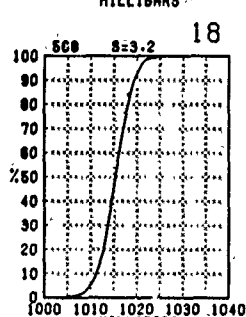
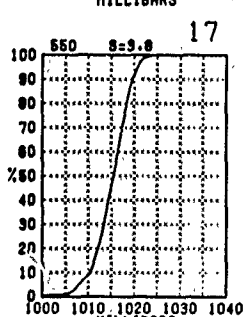
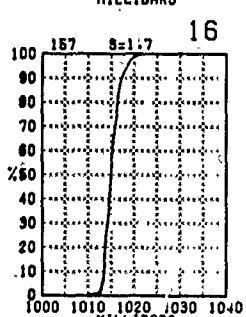
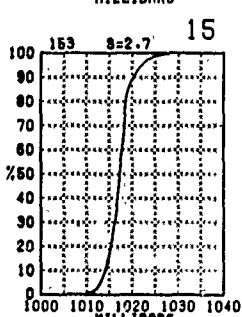
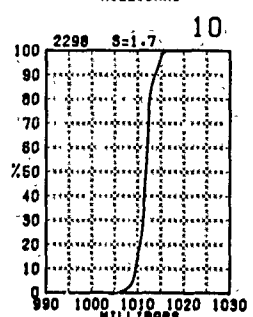
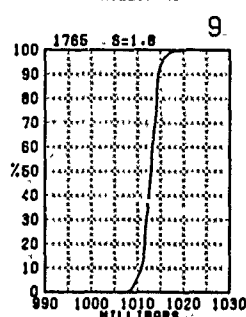
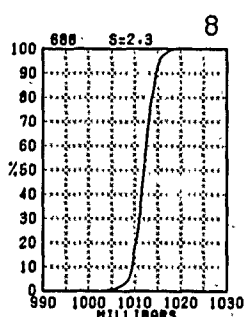
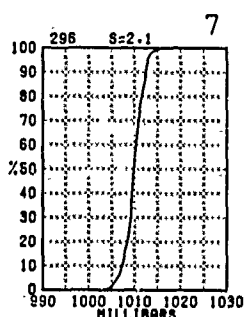
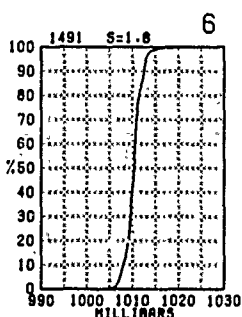
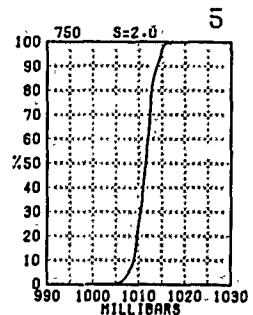
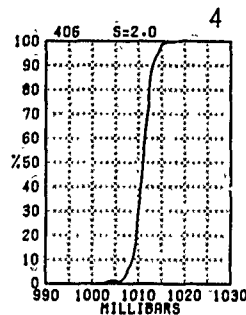
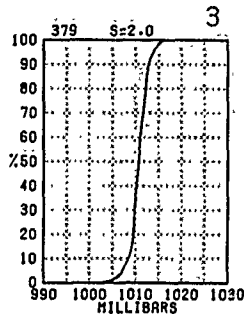
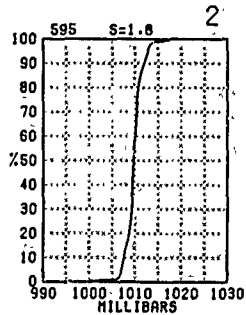
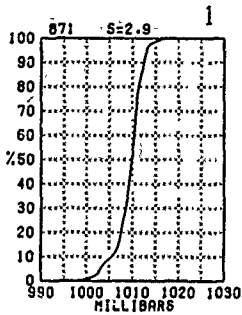
BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without regard to source. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias is evident.

MAY

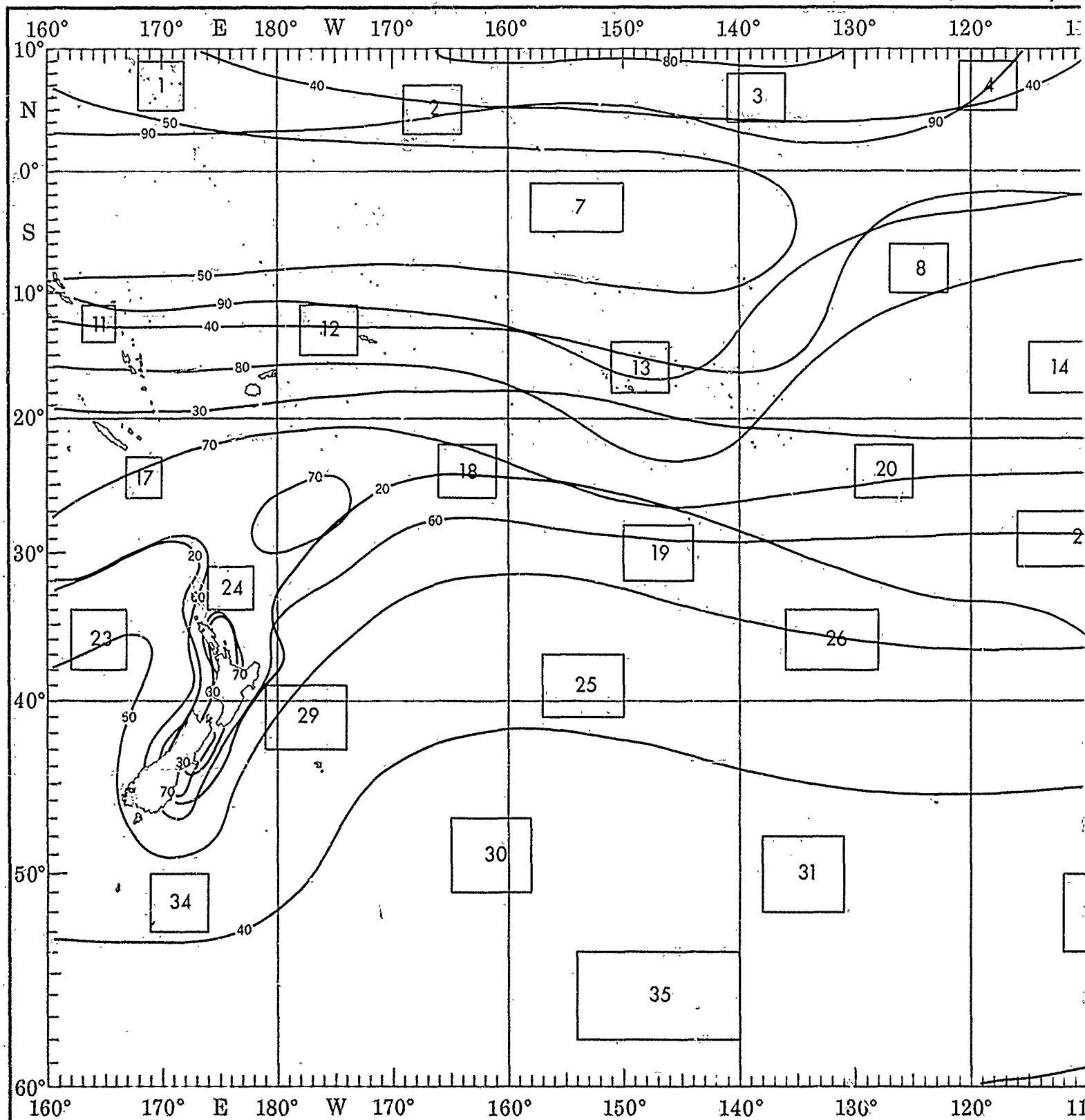


less than the

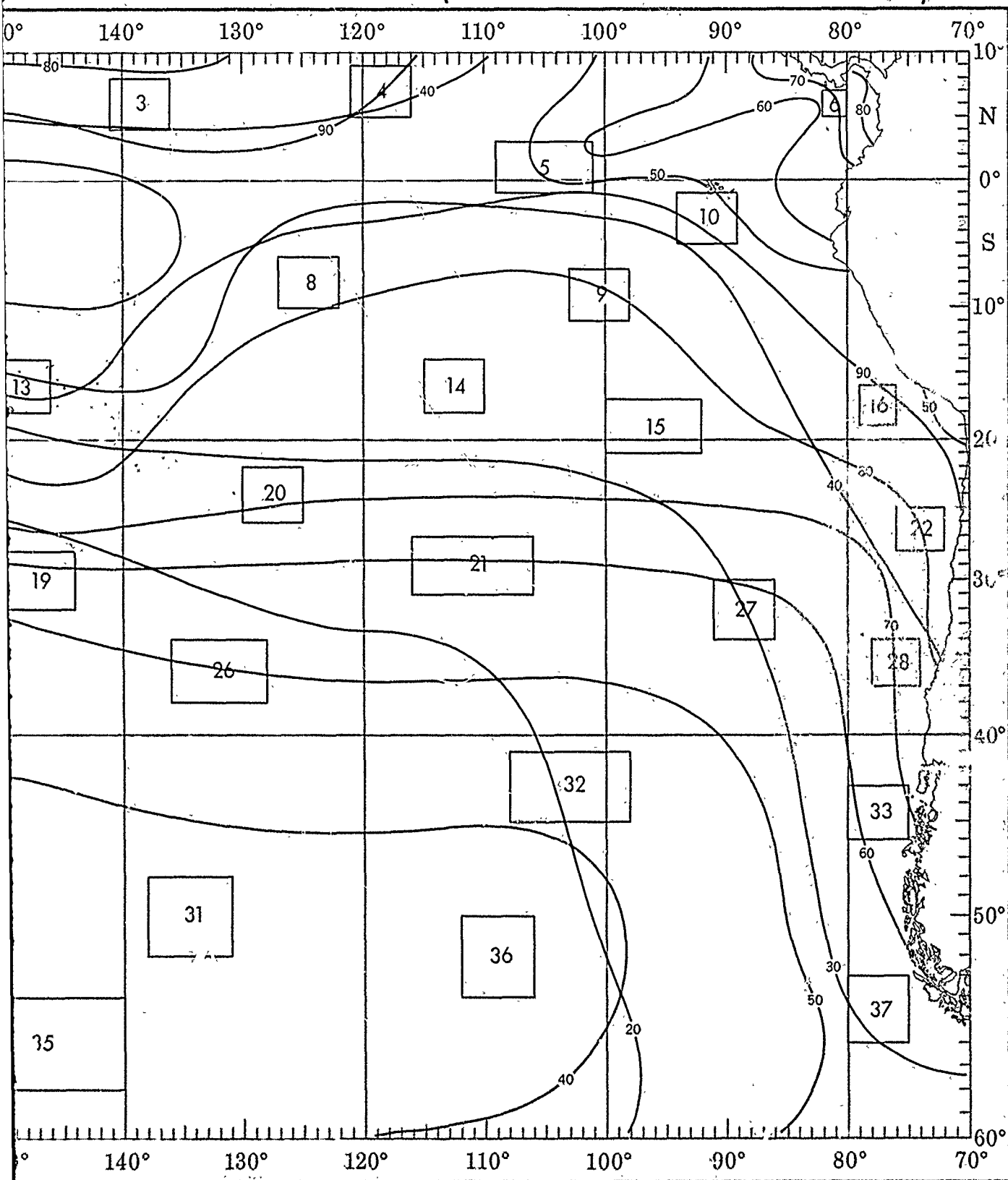
with the

MAY

WAVES (<



WAVES (<1.5 AND <2.5 METERS)

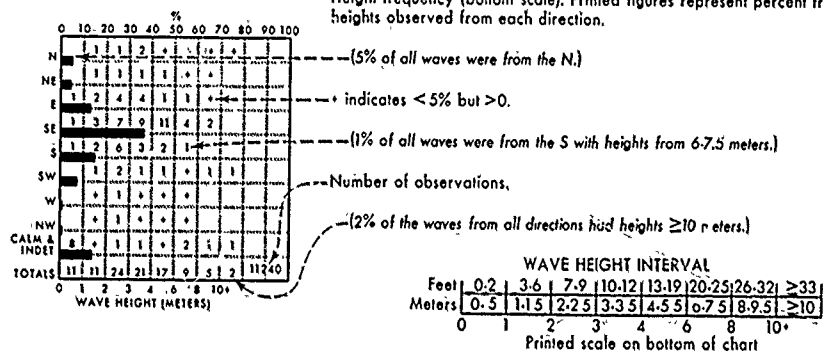


WAVE DIRECTION AND HEIGHT

Wave direction and height.

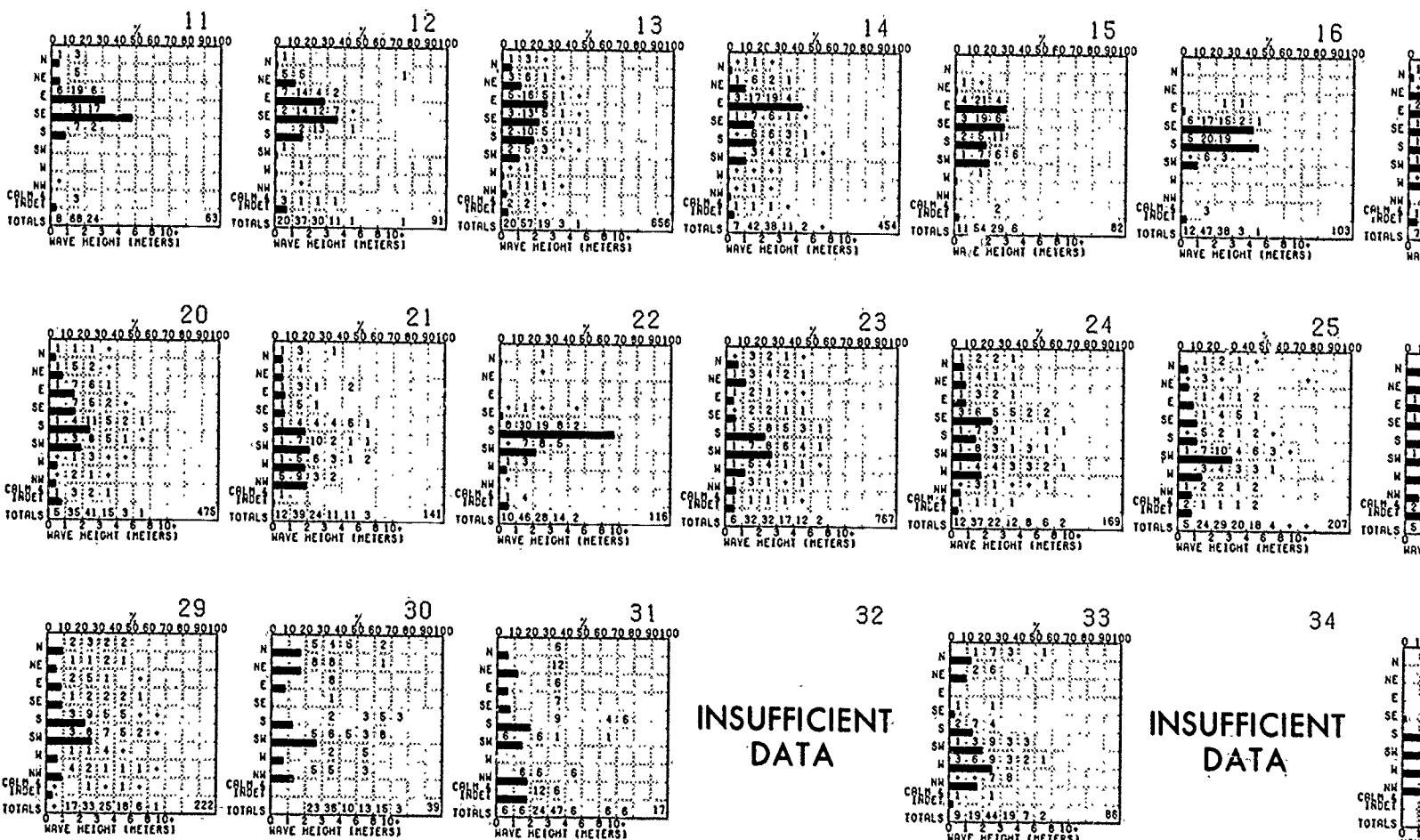
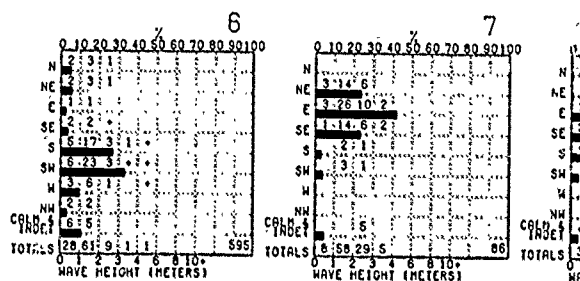
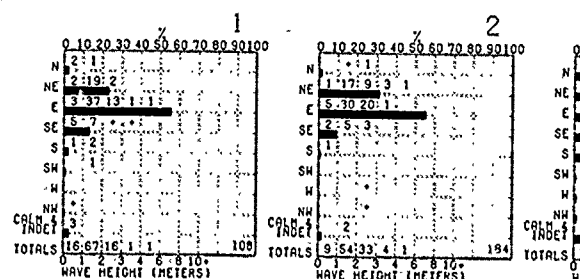
Direction - frequency (top scale). Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale). Printed figures represent percent frequency of wave heights observed from each direction.



BLUE LINE - Percent frequency of wave height ≤ 1.5 meters (5 feet)

RED LINE - Percent frequency of wave height ≤ 2.5 meters (8 feet)

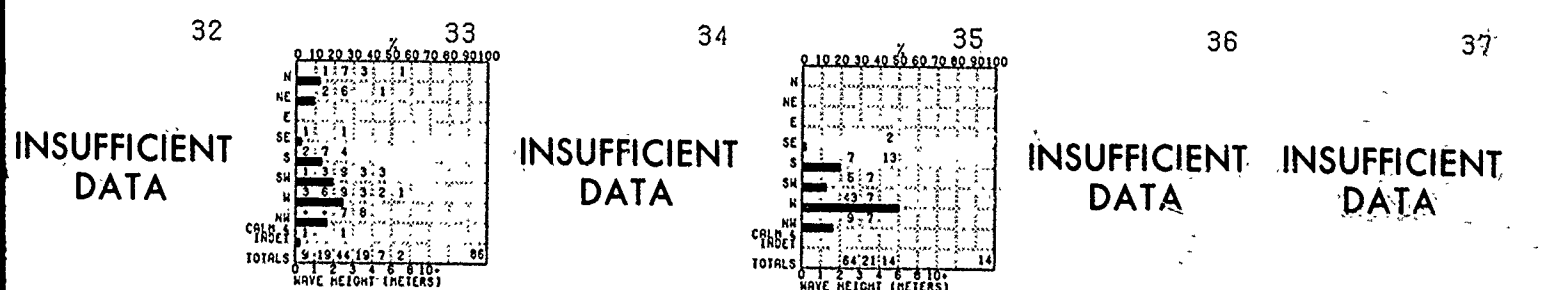
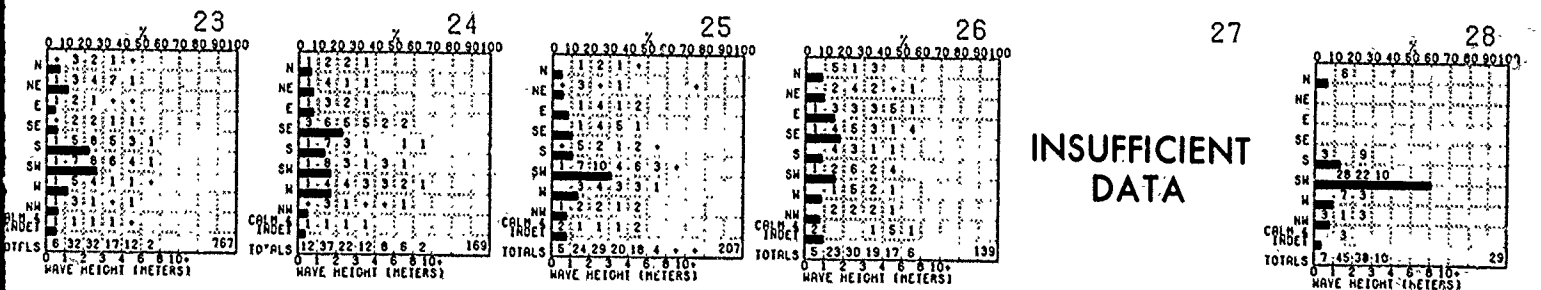
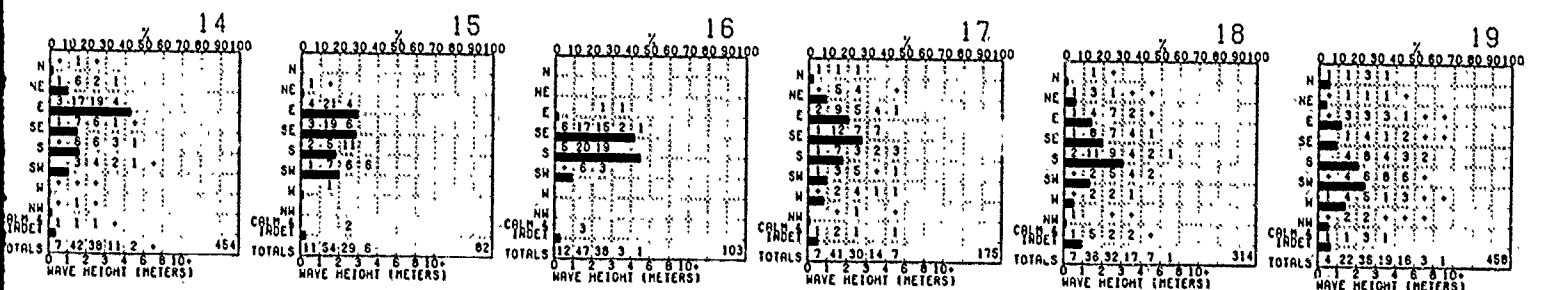
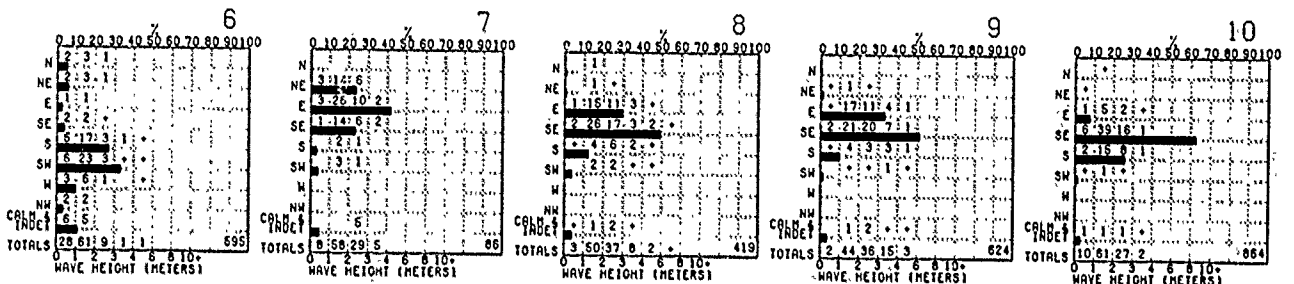
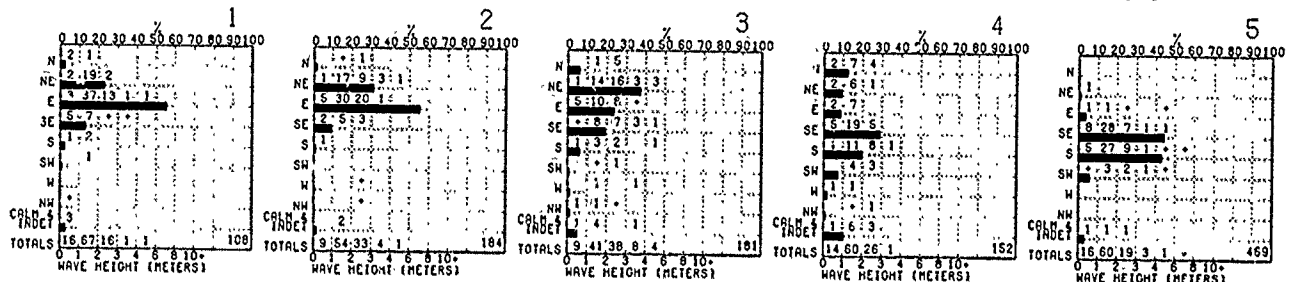


Graphs represent the objective compilation of available data for specified areas without regard to sus. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

HEIGHT

MAY

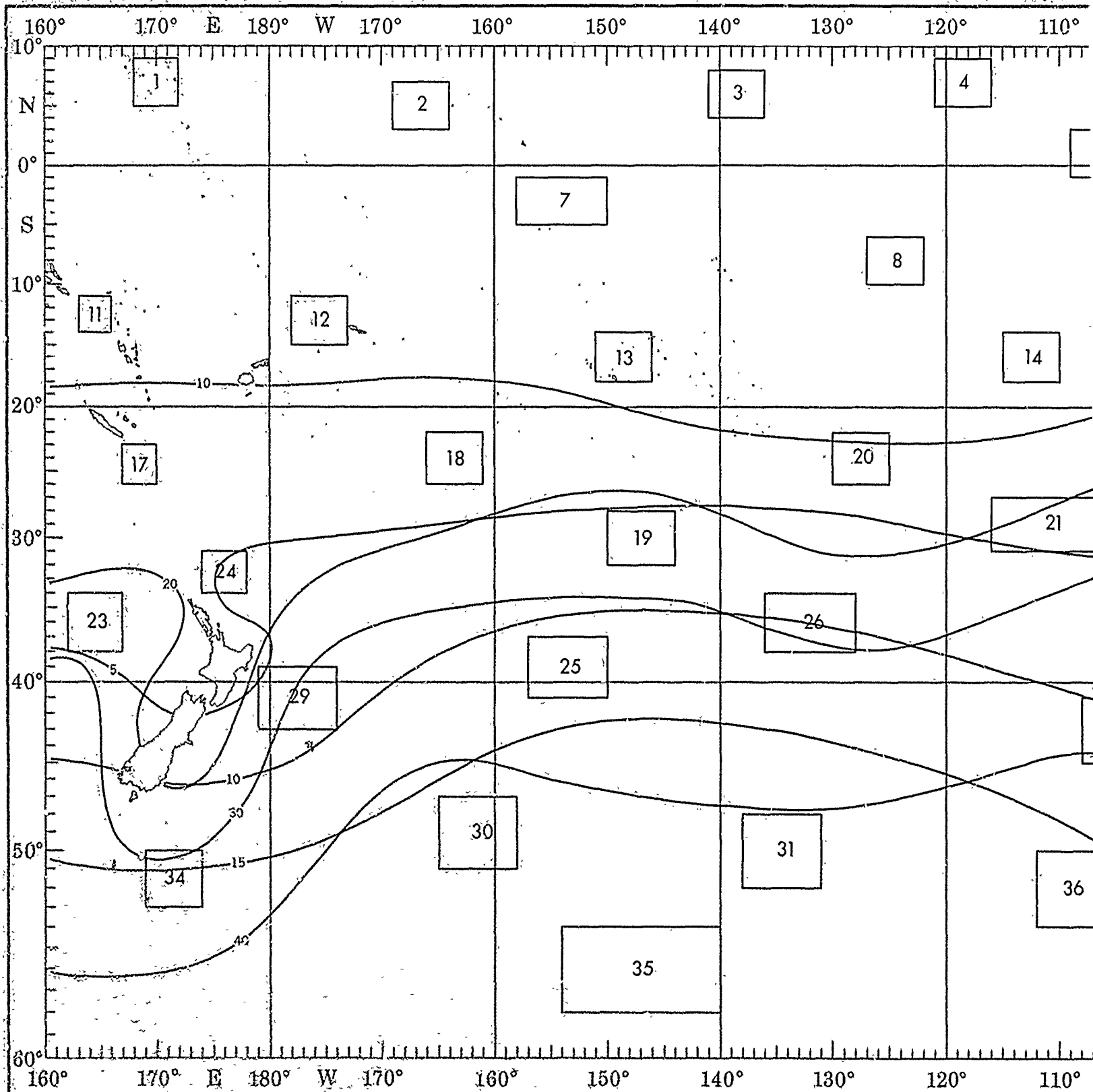
ency of waves from
cent frequency of wave



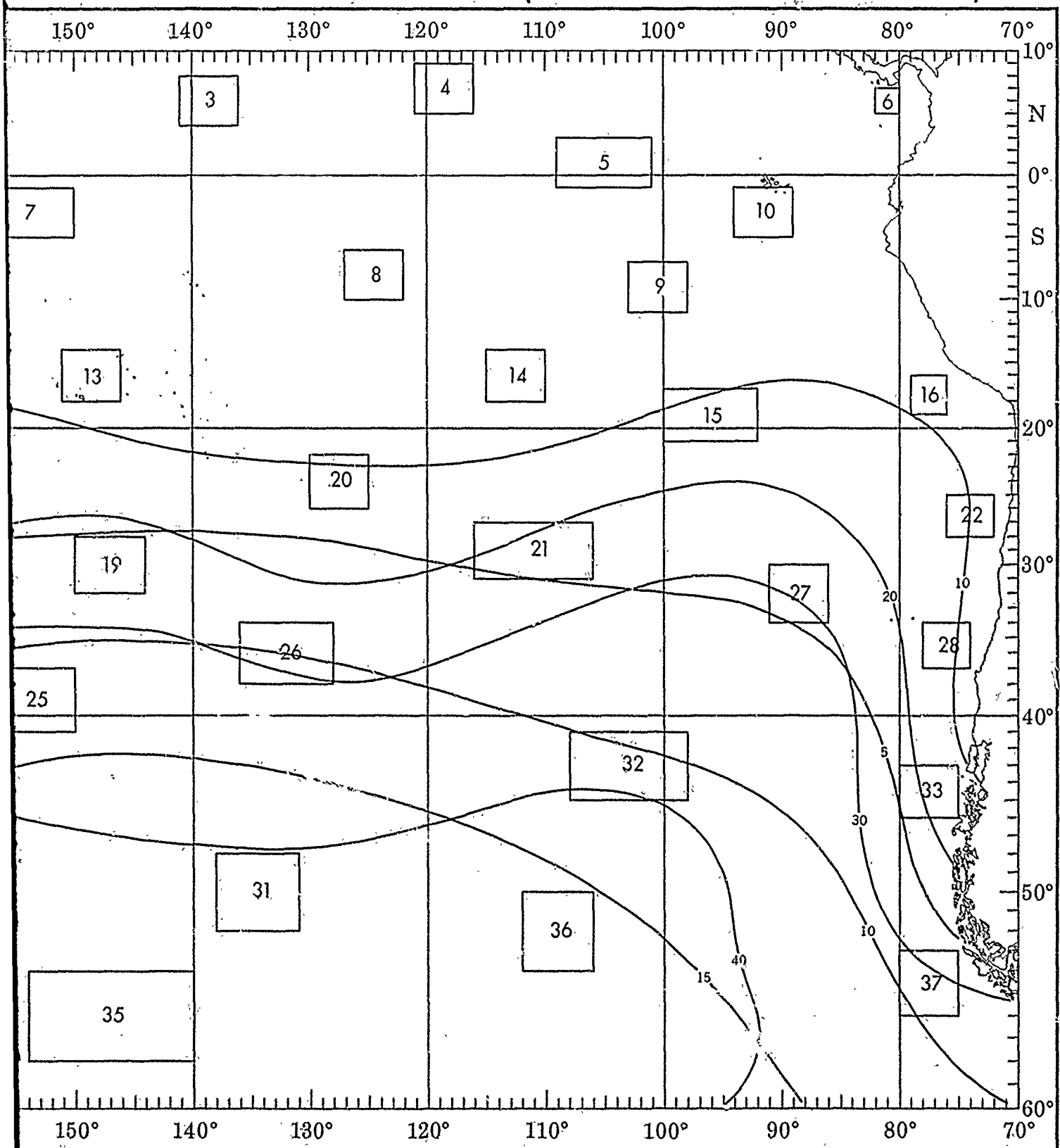
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

MAY

WAVES (\geq)



WAVES (≥ 3.5 AND ≥ 6 METERS)



WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

-(2% of observed waves had a height of 1.1-1.5 meters and a period of 10-11 seconds.)

- + indicates $<.5\%$ but >0 .

-Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

HEIGHT (INCHES)	PERIOD (Seconds)					
	2.6	2.7	2.8	3.0	3.2	3.5
0-3	21	3	1	+	+	6
3-5	22	16	6	2	1	+
5-7.5	3	6	4	3	1	+
7.5-9	+	1	1	1	1	+
9-11	+	+	+	+	+	0
11-15	0	+	+	0	0	0
15-20	0	0	0	+	0	0
20+	0	0	0	0	+	0

4010

HEIGHT (MTRS)	PERIOD (SECONDS)						
	6	7	9	10	11	12	13
0-5	14	2	0	0	0	0	3
1-5	17	33	9	3	2	0	1
2-5	5	5	3	2	0	0	1
3-5	1	0	0	0	0	0	0
4-5	1	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)					
	6	7	8	10	12	13
0-0.5	7	1	0	0	0	0
1-1.5	23	14	9	1	2	1
2-2.5	2	14	11	4	2	0
3-3.5	0	1	1	1	0	0
4-4.5	0	1	0	0	0	0
5-5.5	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0

[illegible]

WEIGHT (INRS)	PERIOD (SECONDS)					
	6	7	8	10	12	13
0-0.5	7	0	2	0	0	0
1-1.5	28	18	7	1	0	0
2-2.5	2	13	7	2	0	0
3-3.5	0	1	3	0	0	0
4-5.5	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0
8-9.5	0	0	0	0	0	0
>10	0	0	0	0	0	0

BLUE LINE • Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE = Percent frequency of wave height ≥ 6 meters (20 feet)

HEIGHT (FEET)	PERIOD (SECONDS)						
	0-1	1-2	2-3	3-4	4-5	5-6	6-7
0-0.5	5	3	0	0	0	0	0
1-1.5	30	30	2	2	0	0	5
2-2.5	5	11	5	2	0	2	0
3-3.5	0	0	0	0	0	0	0
4-4.5	0	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0

12

HEIGHT (INCHES)	PERIOD (SECONDS)								END
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	
0-1	17	0	0	0	0	0	0	4	
1-1	14	8	6	2	0	0	0	6	
2-1	1	10	12	4	0	0	0	2	
3-1	0	5	3	0	0	0	1	1	
4-1	0	0	1	0	0	0	0	0	
5-1	0	0	0	0	0	0	0	0	
6-1	0	0	0	0	0	0	0	0	
7-1	0	0	0	0	1	0	0	0	
8-1	0	0	0	0	0	0	0	0	

		PERIOD (SECONDS)							13	
ME (CONT)	INTERVAL	<6	6+	7	8+	9	10+	12+		
0-0.5	13	3	2	1	0	0				
1-1.5	19	17	10		3	2	+			
2-2.5		3	6	5	2	1	+			
3-3.5		+	1	1	1	+	+			
4-4.5		+	0	+	+	0	+			
5-5.5		0	0	0	0	0	0	0		
6-6.5		0	0	0	0	0	0	0		
7-7.5		0	0	0	0	0	0	0		
8-8.5		0	0	0	0	0	0	0		
9-9.5		0	0	0	0	0	0	0		
10		0	0	0	0	0	0	0		

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6	7	8	9	10	11	12
0-5	5	4	0	0	0	0	0
1-5	19	12	3	3	1	1	
2-5	9	13	6	5	2	1	
3-5	2	3	2	2	1	0	
4-5	0	1	1	+	+	0	
5-5	0	0	+	0	0	0	
6-5	0	0	+	0	0	0	
7-5	0	0	0	0	0	0	
8-5	0	0	0	0	0	0	

HEIGHT (INCHES)	PERIOD (SECONDS)						
	6-	7	8	10-	12-	13	140
0-5	7	0	0	0	0	0	9
1-1.5	30	5	7	3	0	0	6
2-2.5	3	3	1	9	1	7	2
3-3.5	0	0	1	0	5	0	0
4-5.5	0	0	0	0	0	0	0
6-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
≥10	0	0	0	0	0	0	0

MEANING	PERIOD (SECONDS)						
	1-5	6-7	8-9	10-11	12-13	14-15	16-17
0-5	6	3	0	0	0	0	5
1-5	14	11	5	4	0	2	10
2-5	8	8	13	6	1	1	1
3-5	0	1	1	1	0	0	0
4-5	0	0	0	1	0	0	0
5-5	0	0	0	0	0	0	0
6-5	0	0	0	0	0	0	0
7-5	0	0	0	0	0	0	0
8-5	0	0	0	0	0	0	0
9-5	0	0	0	0	0	0	0
10-5	0	0	0	0	0	0	0

	PERIOD (SECONDS)							
MOUNT ENTER	-6	-5	-4	-3	-2	-1	0	1
0-5	4	*	*	*	0	0	1	
1-1.5	11	9	6	3	3	*	3	
2-2.5	7	13	11	5	1	*	3	
3-3.5	1	3	4	5	*	*	1	
4-4.5	0	*	1	*	1	*	0	
5-5.5	0	0	*	1	*	0	0	
6-6.5	0	0	0	0	0	0	0	
7-10	0	0	0	0	0	0	0	

[illegible]

MEAN (M)	PERIOD (SECONDS)						
	6.5	7	8	10	12	13	15
0-0.5	7	1	0	0	0	0	
1-1.5	11	13	12	0	1	1	
2-2.5	2	10	5	5	3	0	
3-3.5	0	4	1	8	1	0	
4-4.5	0	0	1	0	1	0	
5-5.5	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	

HEIGHT	PERIOD (SECONDS)						
	6	7	8	9	10	12	14
0-6	4	+	+	0	0	0	
1-6	12	13	4	1	1	+	
2-6	5	11	6	6	2	1	
3-6	2	5	5	3	1	+	
4-6	+	2	4	2	1	1	
5-6	+	+	1	+	0	0	
6-6	0	0	0	0	0	0	
7-6	0	0	0	0	0	0	

HEIGHT (INCH)	PERIOD (SECONDS)						
	4-5	6-7	8-9	10-11	12-13	14-15	16-17
0-5	9	2	0	0	0	0	2
1-1.5	14	14	2	3	2	0	1
2-2.5	5	6	5	3	1	0	1
3-3.5	2	5	1	3	1	1	1
4-5.5	0	2	3	3	1	0	0
6-7.5	0	1	2	1	2	0	0
8-9.5	0	0	0	1	1	0	0
>10	0	0	0	0	0	0	0

HEIGHT (INCHES)	PERIOD (SECONDS)						
	4.5	5	5.5	6	6.5	7	7.5
9-10	3	0	0	0	0	0	2
11-12	8	8	2	1	1	0	2
13-14	5	9	8	3	2	0	1
15-16	1	7	5	3	2	+	1
17-18	4	5	1	6	4	2	3
19-20	0	+	+	1	1	+	0
21-22	0	0	0	0	+	0	0
23-24	0	0	0	+	0	0	0

[illegible]

30

		PERIOD (SECONDS)							
MEAN (M)	STANDARD	6-	8-	10-	12-	13-	14-	15-	
0-5	0	0	0	0	0	0	0	0	
1-1.5	0	0	0	0	0	0	0	0	
2-2.5	8	3	3	3	0	0	8		
3-3.5	0	10	0	21	5	0			
4-4.5	0	0	5	3	0	0	3		
5-5.5	0	5	5	3	0	0			
6-6.5	0	3	0	5	0	8	0		
7-7.5	0	0	0	3	0	0	0		

HEIGHT INFEET	PERIOD (SECONDS)					
	<6	6-7	8-9	10-11	12-13	14+
0-0.5	6	0	0	0	0	0
1-1.5	0	6	0	0	0	0
2-2.5	0	6	6	0	0	12
3-3.5	0	6	18	0	0	24
4-4.5	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0
6-6.5	0	0	0	6	0	0
7-7.5	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0
9-10	0	0	0	0	0	0

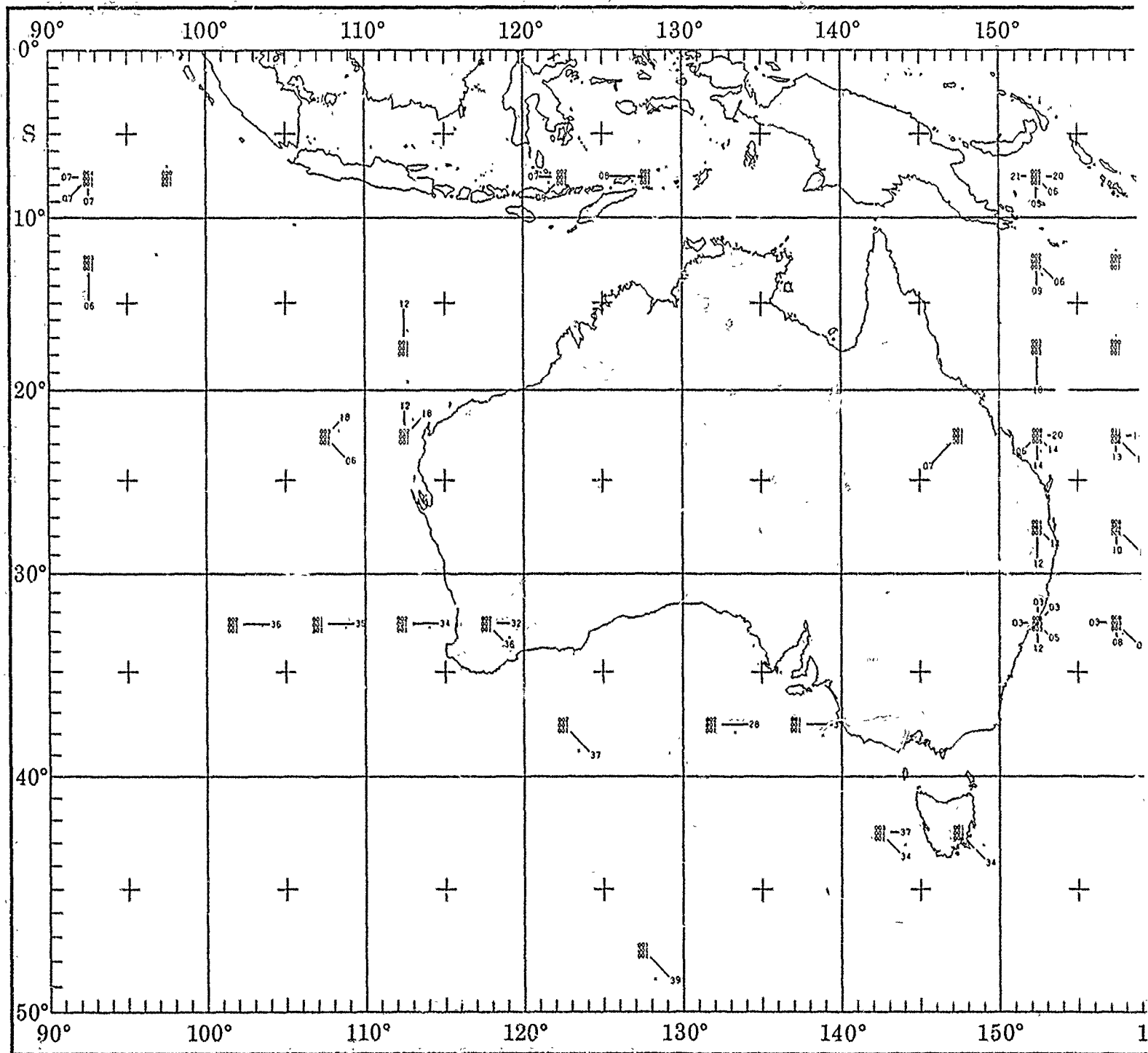
HEIGHT (INCH)	PERIOD (SECONDS)						
	6-7	7-8	8-9	9-10	10-11	11-12	12-13
0-5	7	0	0	2	0	0	2
1-5	8	5	1	1	2	0	1
2-5	13	7	9	8	1	1	5
3-5	0	3	5	2	6	1	1
4-5	0	1	1	1	0	2	1
6-7	0	0	0	2	0	0	0
8-9	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0

INSUFFICIENT
DATA

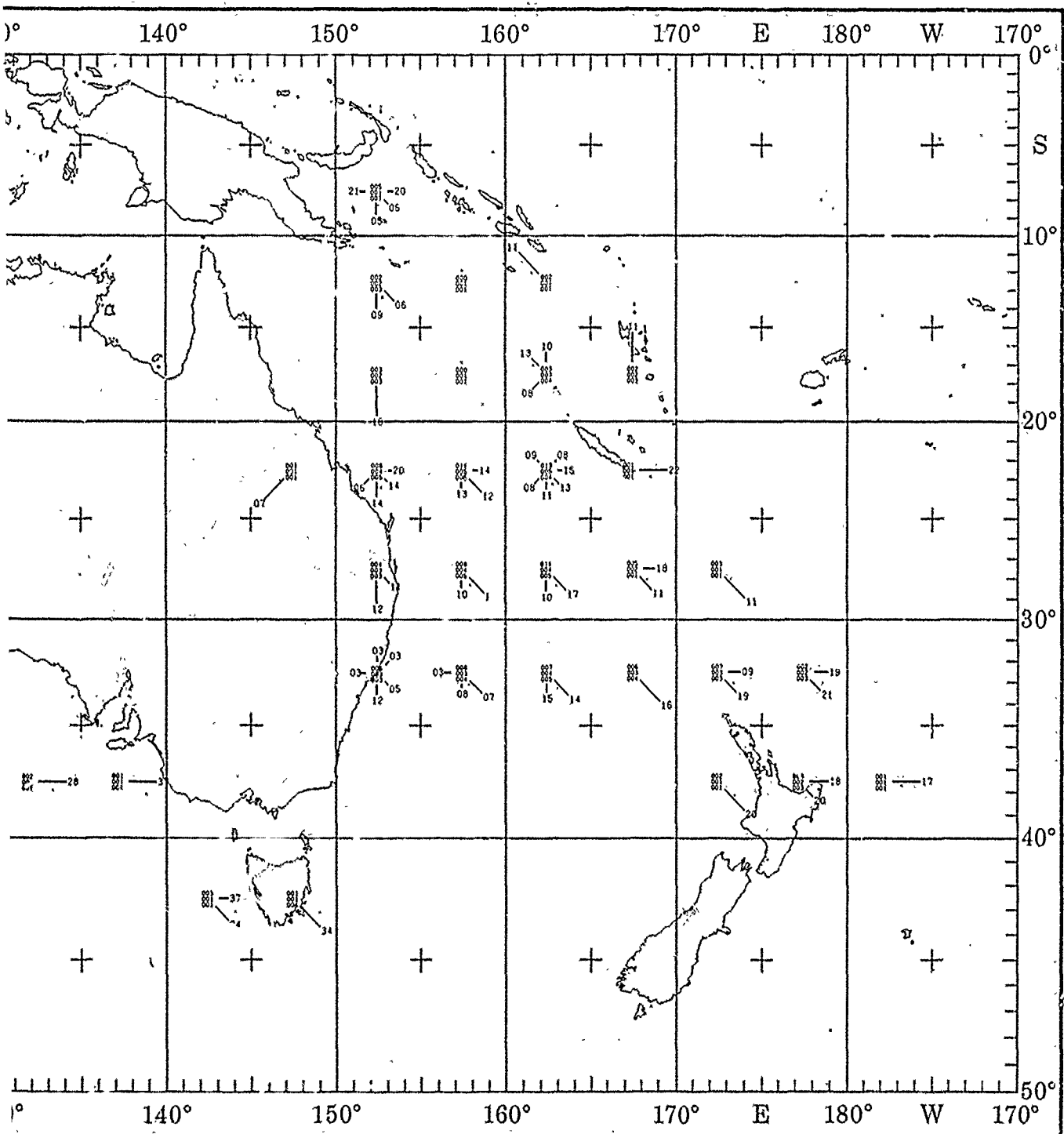
**INSUFFICIENT
DATA**

Graphs represent the objective compilation of available data for specified areas without regard to the results. The isopleth analyses (opposite page) are based on all available data subjectively adjusted with regard to the results.

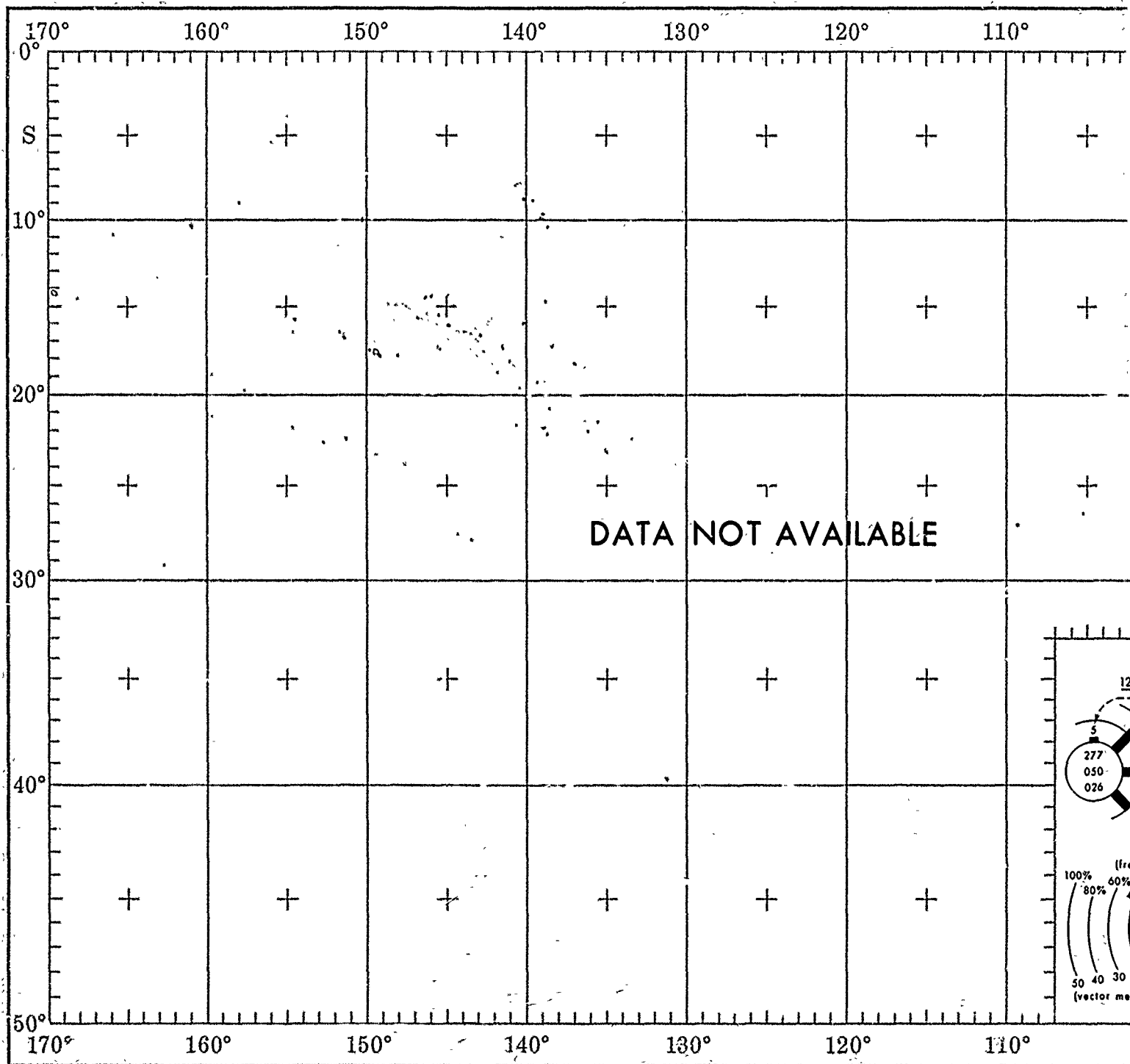
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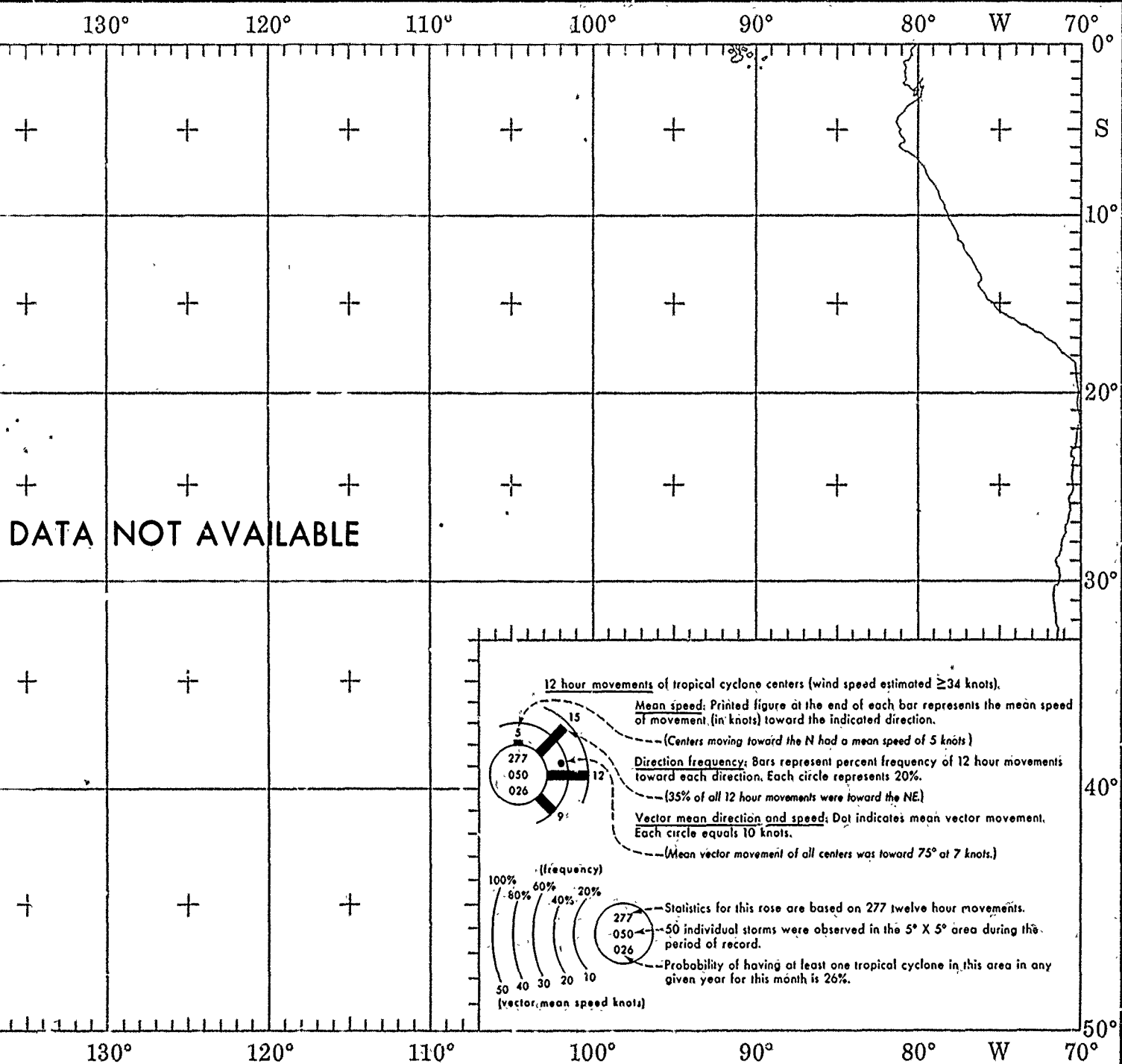
TROPICAL CYCLONE



TROPICAL CYCLONE

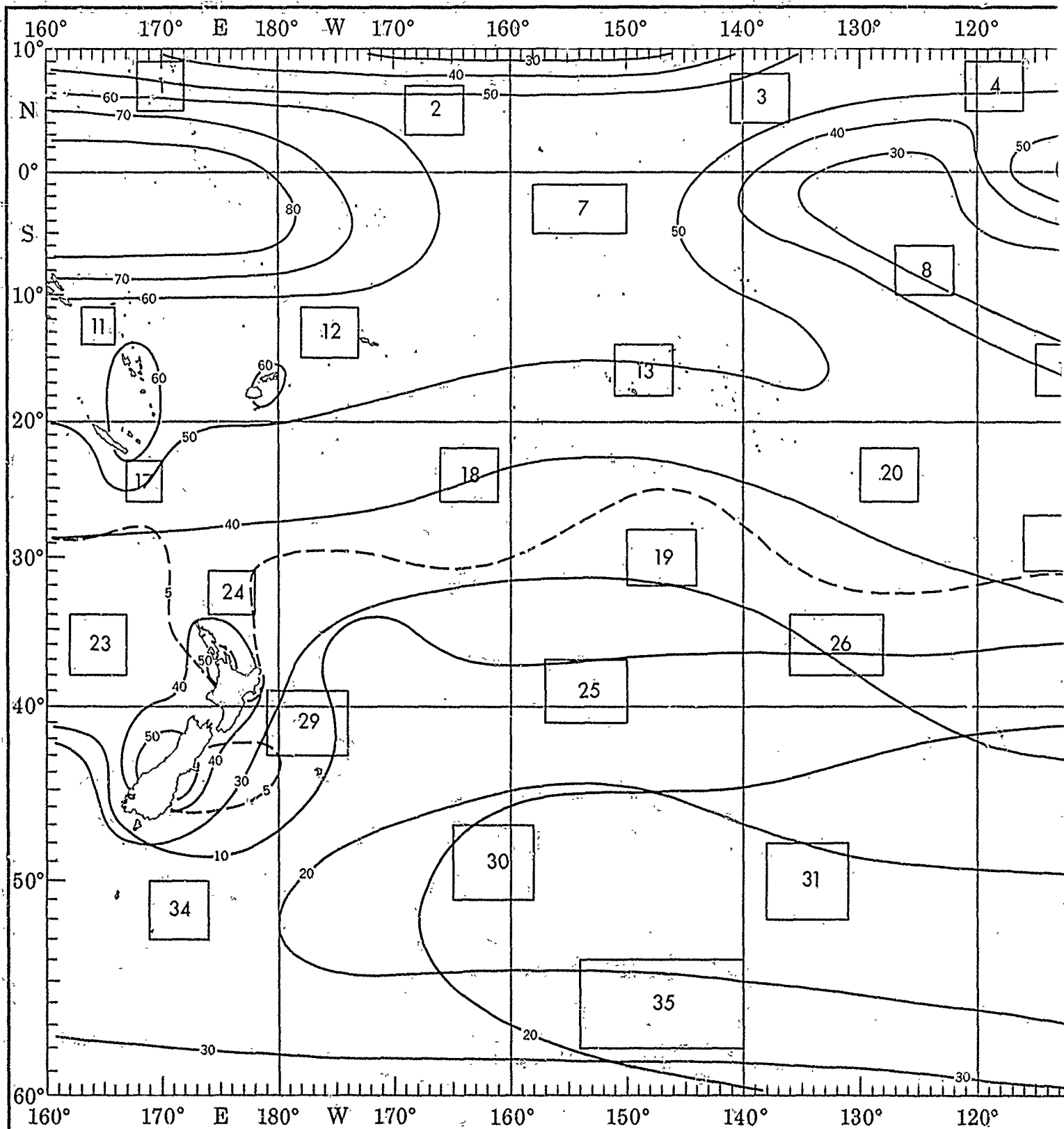


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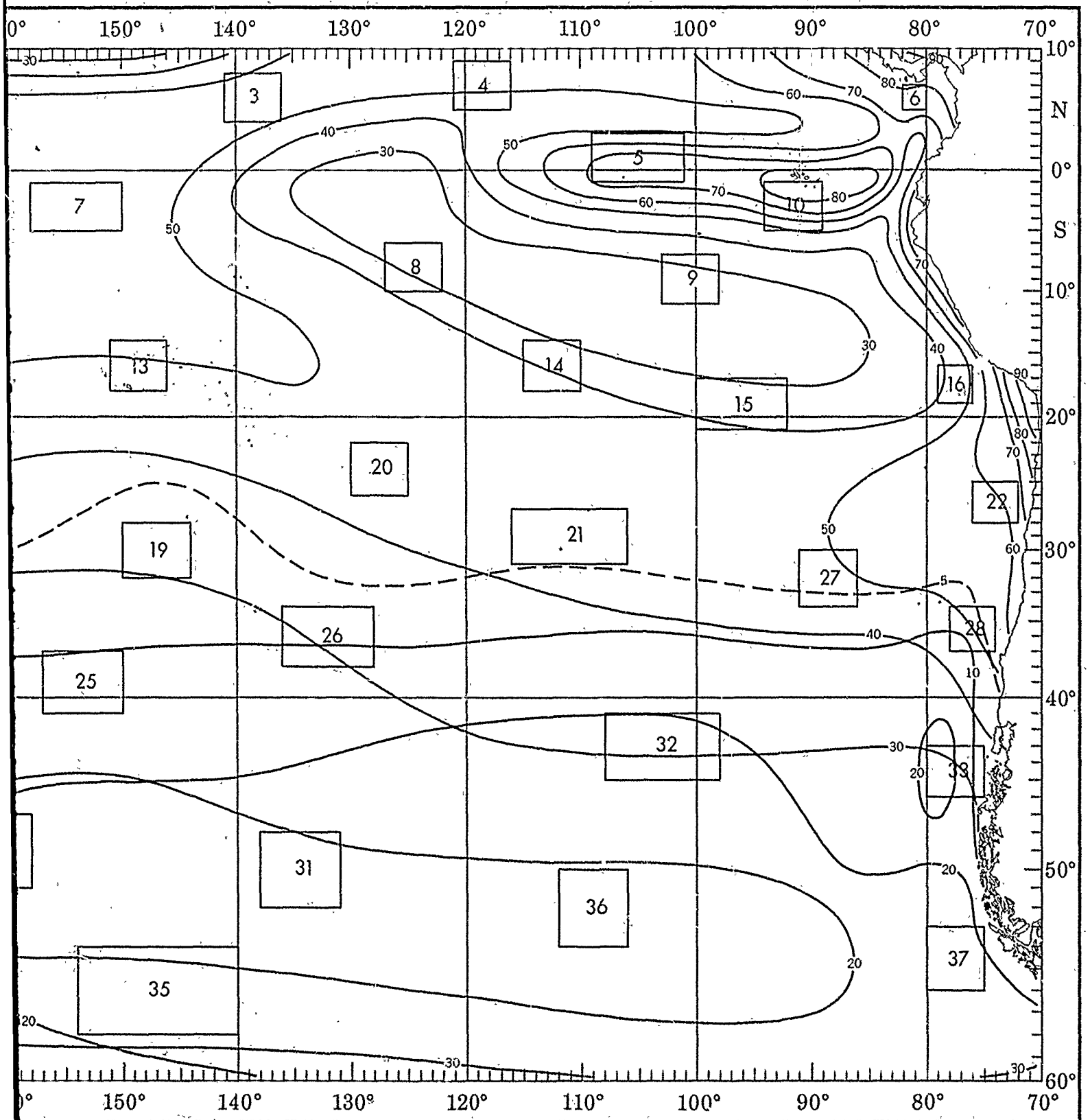


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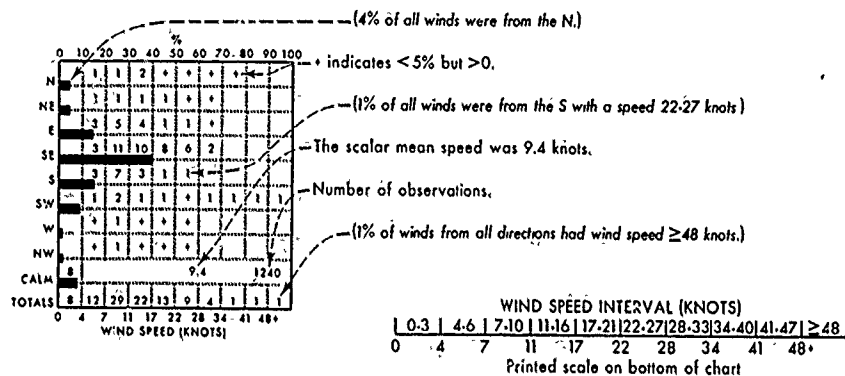


SURFACE WINDS



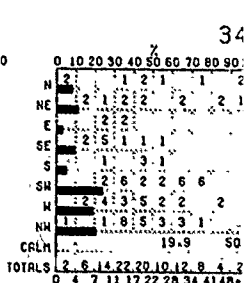
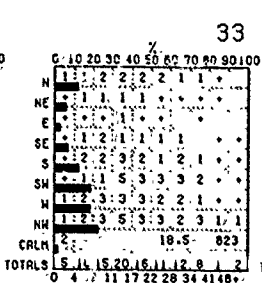
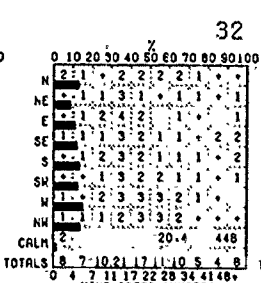
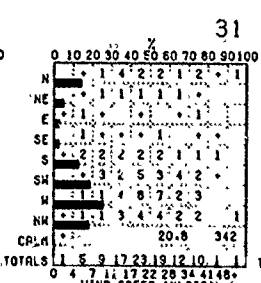
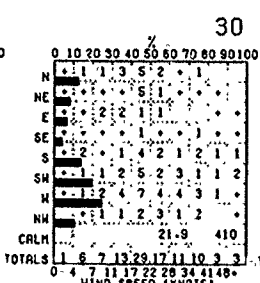
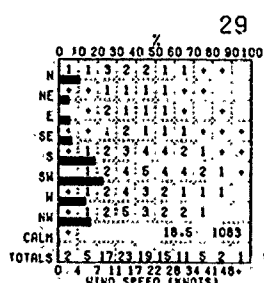
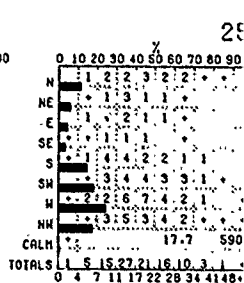
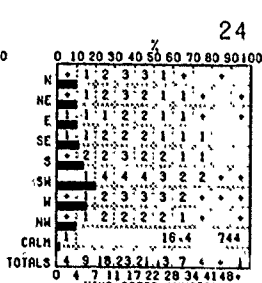
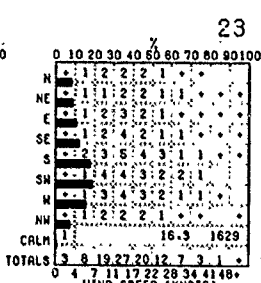
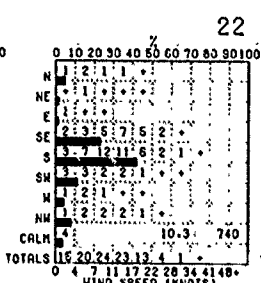
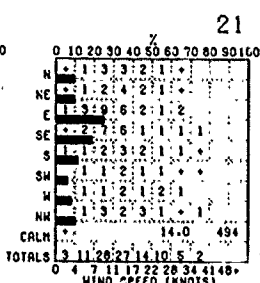
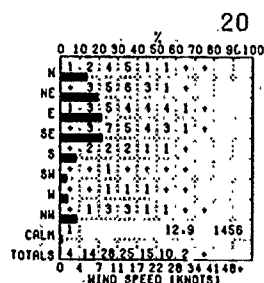
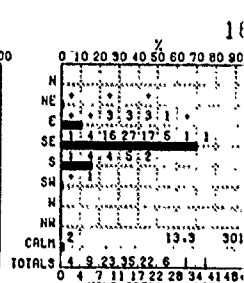
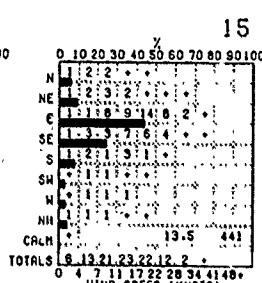
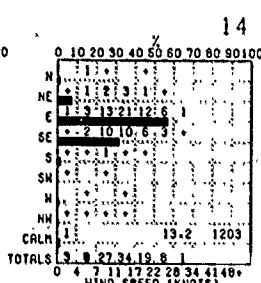
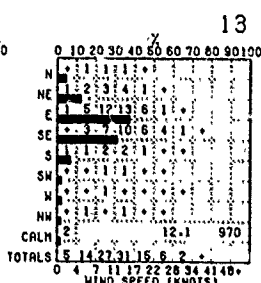
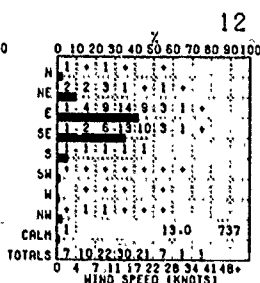
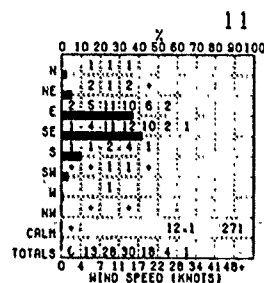
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots.



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted w

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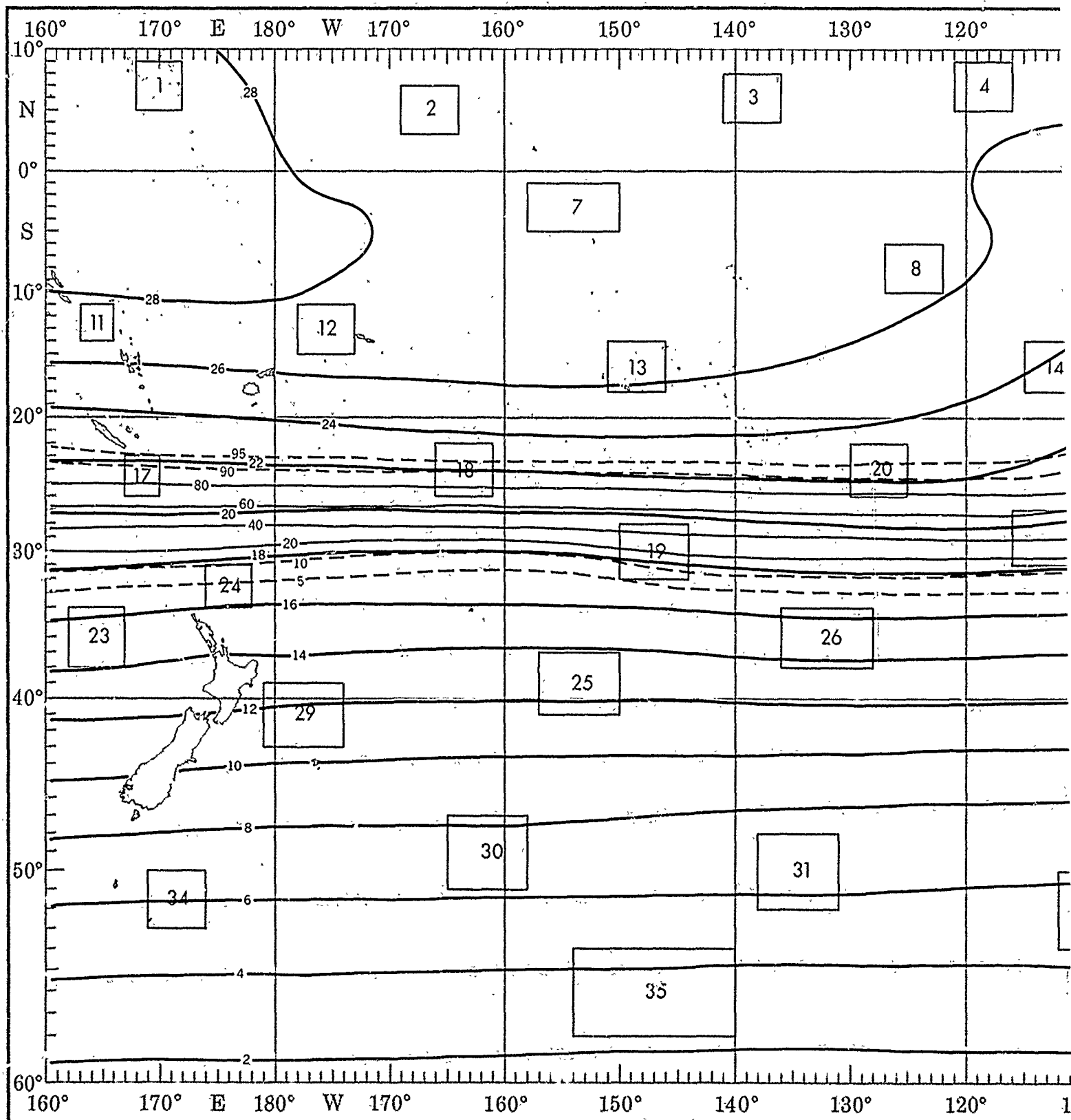
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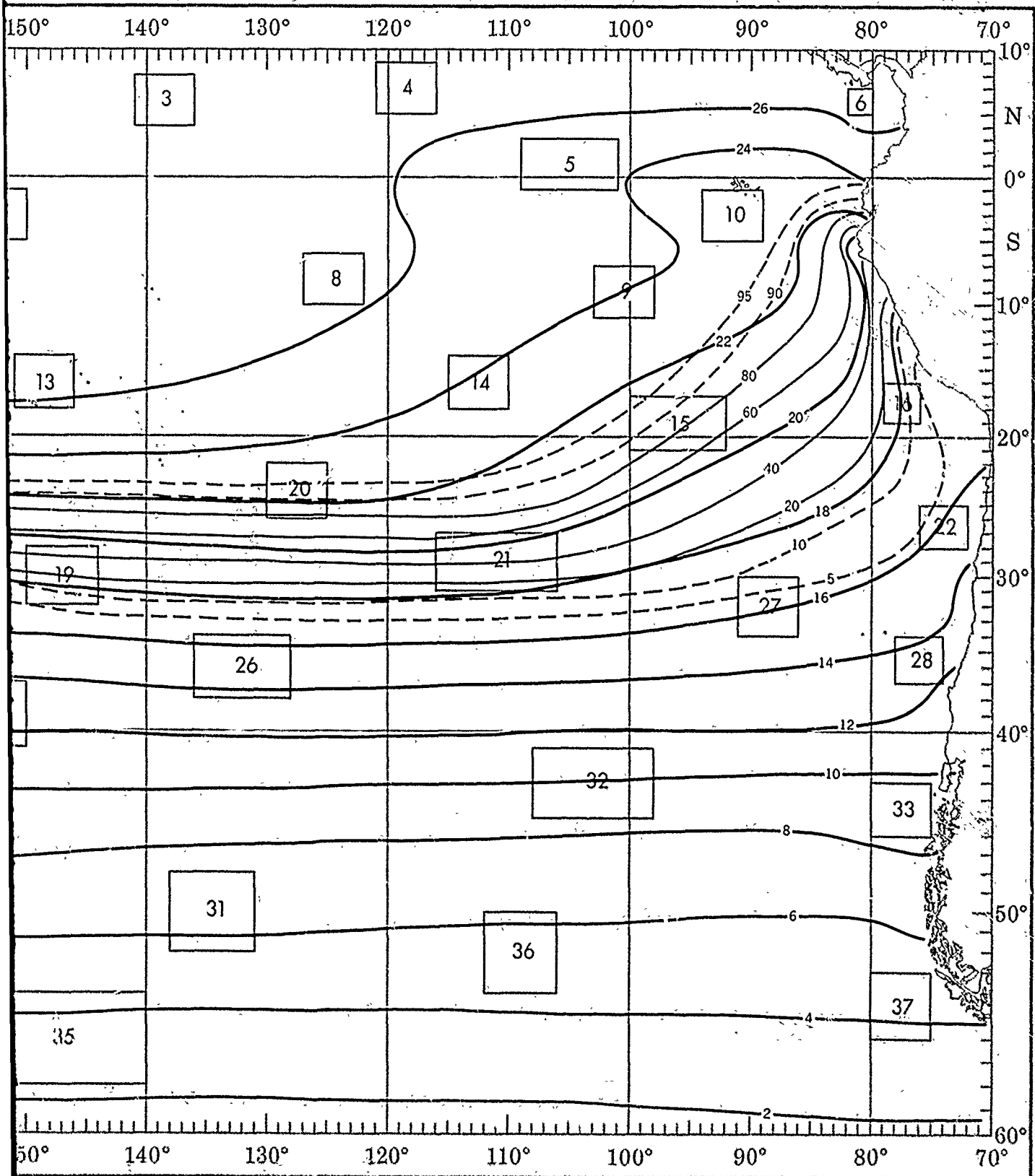
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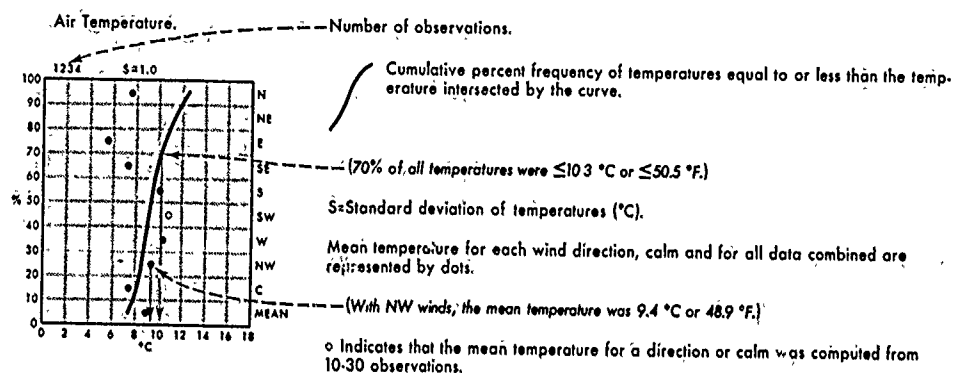
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SURFACE AIR TEMPERATURE



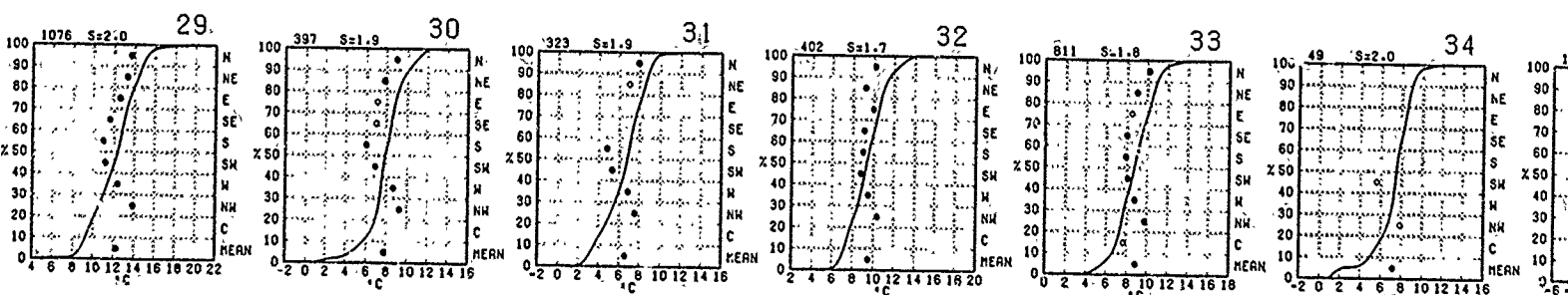
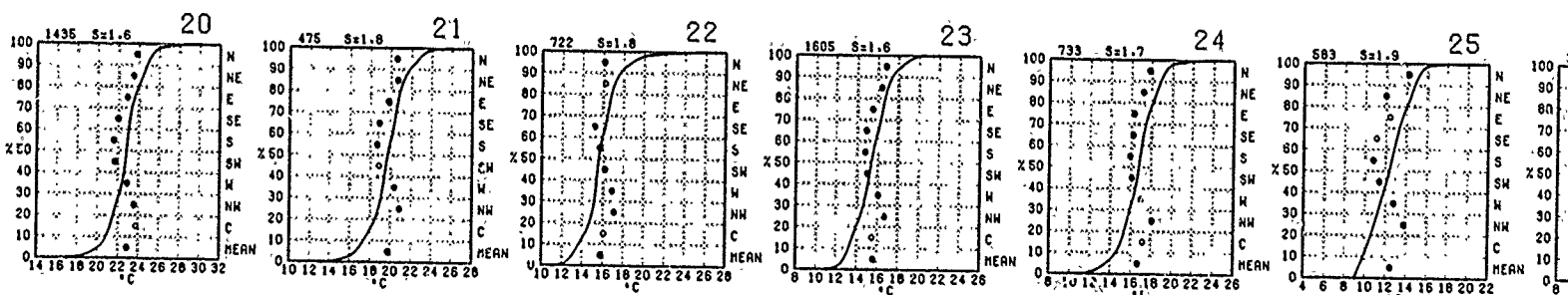
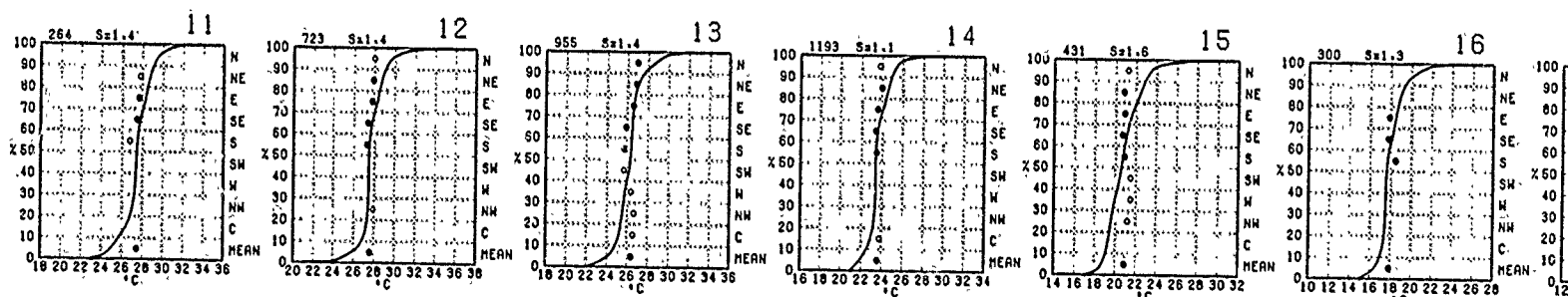
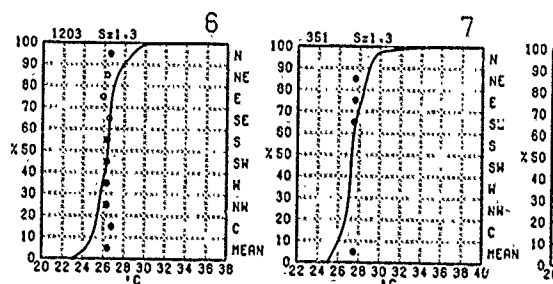
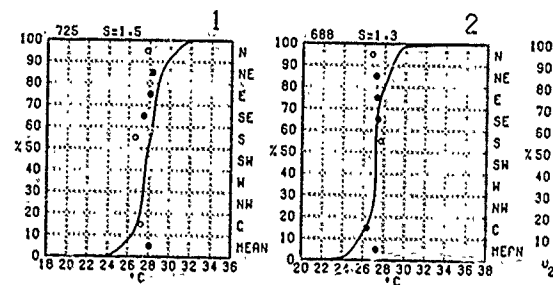
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature (°C)

RED LINE - Percent frequency of temperature ≥ 20 °C (68 °F)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where b

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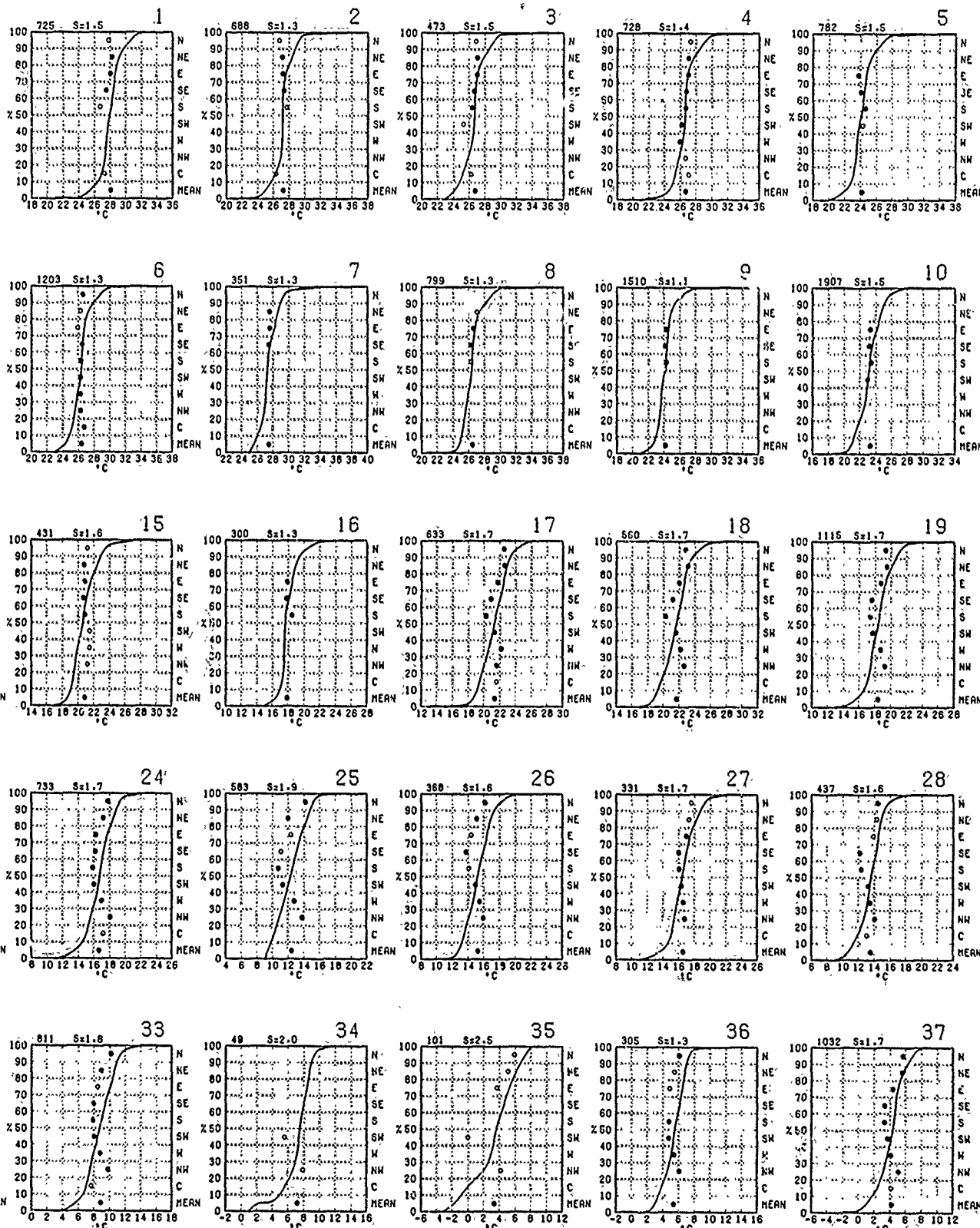
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l data combined are

m was computed from

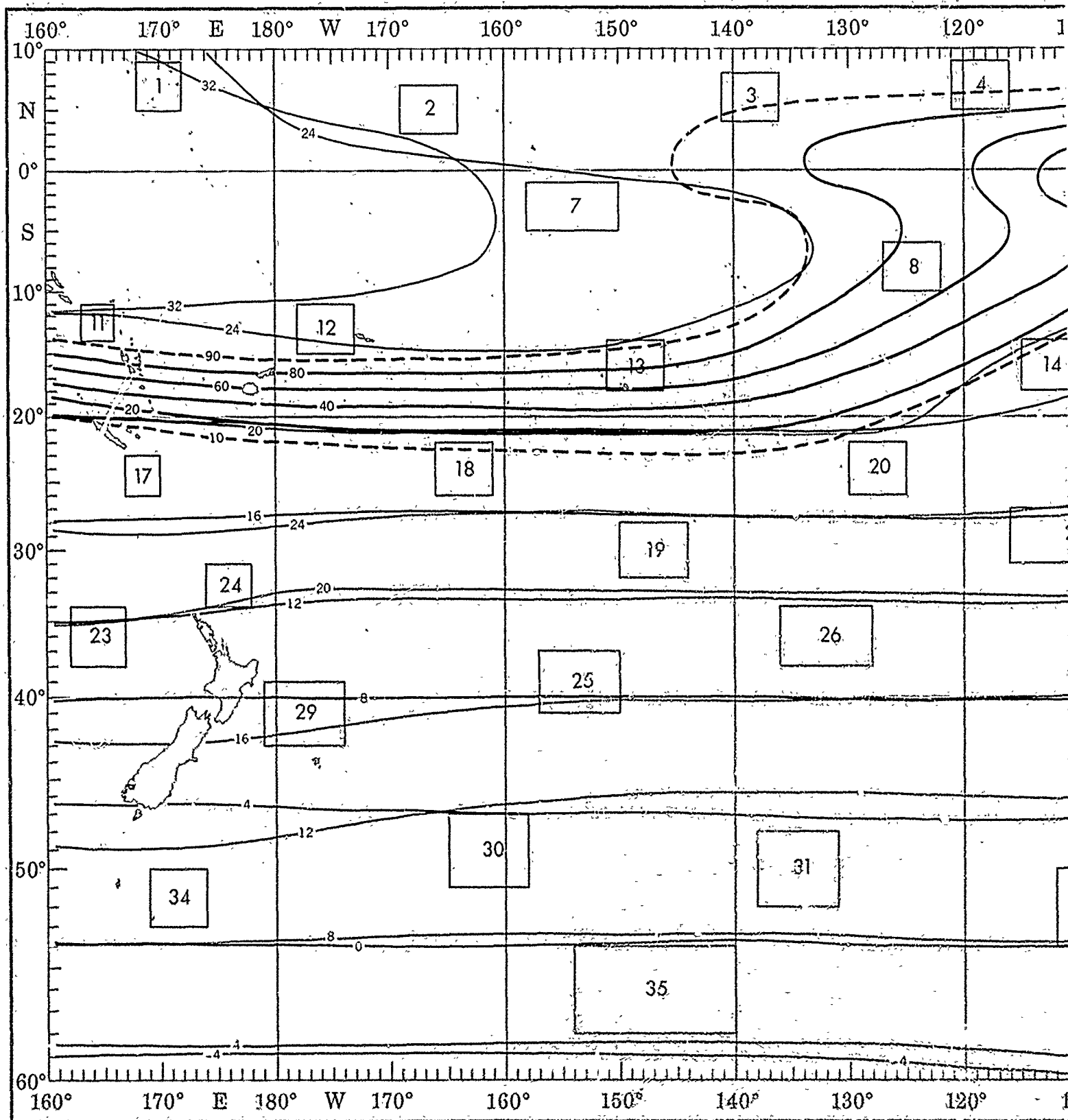
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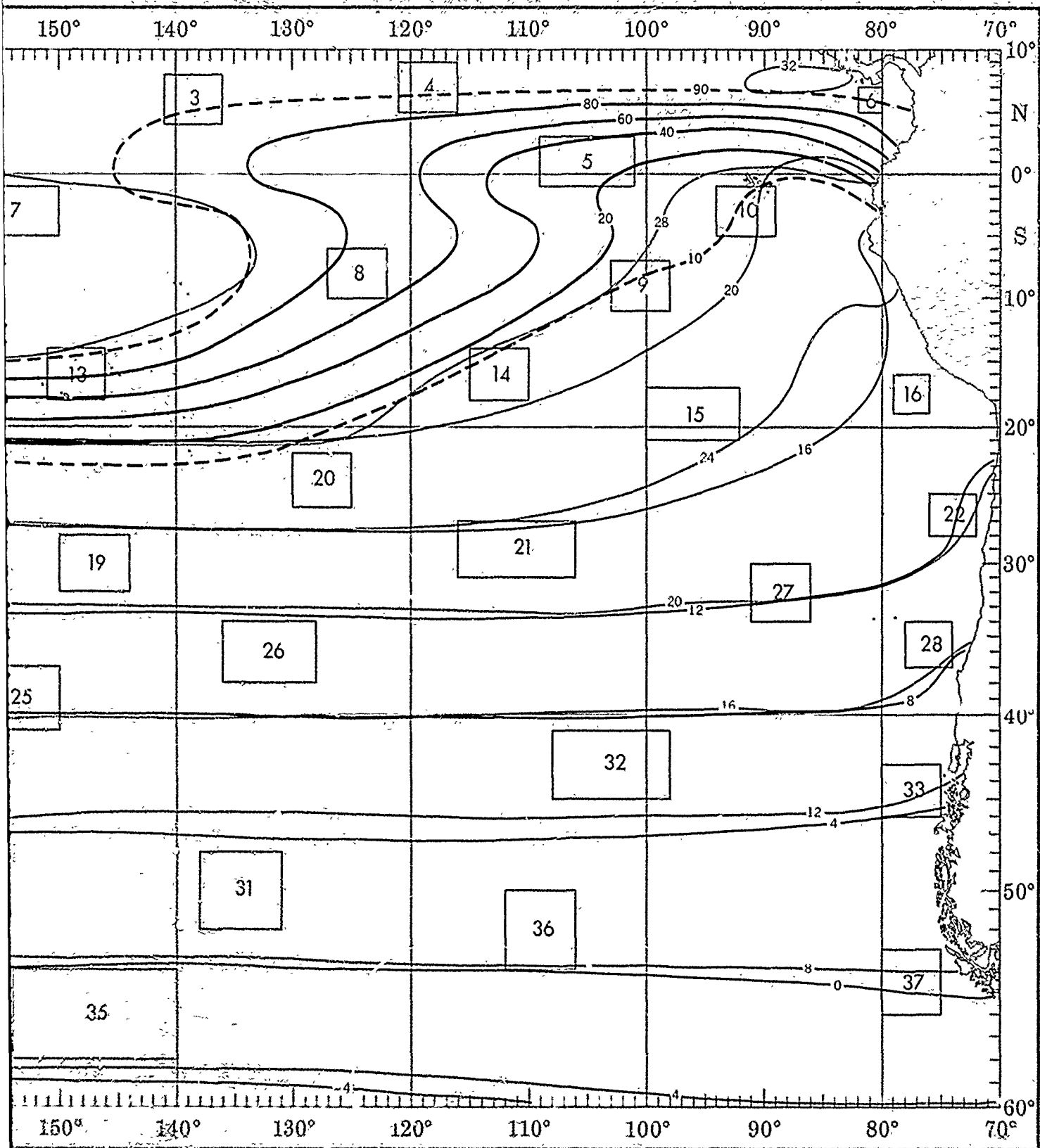
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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TEMPERATURE EXT



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

WIND SPEED (KTS)

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	18	8	7	1	1
30.31	17	8	7	1	1
28.29	15	6	5	1	1
26.27	1	4	0	0	0
24.25	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

3530

(% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts)

+ Indicates < 5% but > 0

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

WIND SPEED (KTS) 1

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	2	0	0
30.31	1	3	9	+	0
28.29	2	24	30	1	0
26.27	2	11	12	1	0
24.25	+	2	1	+	0
22.23	+	+	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

725

WIND SPEED (KTS) 2

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	+	0	0	0
32.33	+	+	+	0	0
30.31	+	1	1	0	0
28.29	3	16	16	+	+
26.27	4	25	3	2	+
24.25	1	3	1	+	+
22.23	0	0	0	0	+
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

59

WIND SPEED (KTS) 6

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	+	+	0	0
30.31	+	1	0	+	0
28.29	5	9	2	+	0
26.27	12	39	12	+	0
24.25	2	10	7	+	0
22.23	+	1	+	+	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

1274

WIND SPEED (KTS) 7

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	+	+	0	0
32.33	0	1	+	0	0
30.31	0	3	+	0	0
28.29	2	20	21	1	+
26.27	3	26	21	+	+
24.25	+	1	+	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	3
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

35

BLACK LINE Percent frequency of T-H index $\geq 24^{\circ}\text{C}$ (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	+	+	0	0
30.31	1	3	3	+	0
28.29	1	19	16	2	0
26.27	2	15	23	3	0
24.25	2	2	1	+	0
22.23	0	+	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

267

WIND SPEED (KTS) 12

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	+	0	0	0
32.33	+	+	+	0	0
30.31	1	3	2	+	0
28.29	3	14	22	4	0
26.27	3	14	26	5	1
24.25	0	1	1	+	0
22.23	0	0	0	0	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

726

WIND SPEED (KTS) 13

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	0	0	0
30.31	+	1	1	0	0
28.29	1	7	7	1	0
26.27	4	26	27	4	0
24.25	1	7	9	3	+
22.23	+	1	1	+	0
20.21	+	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

964

WIND SPEED (KTS) 14

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	+	+	0	0
26.27	+	2	2	+	0
24.25	2	14	25	4	0
22.23	1	19	24	5	0
20.21	+	1	1	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

1203

WIND SPEED (KTS) 15

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	+	+	0	0
26.27	+	1	0	+	0
24.25	+	2	2	1	0
22.23	1	10	10	3	0
20.21	3	14	27	11	0
18.19	2	6	7	1	+
16.17	0	1	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

434

WIND SPEED (KTS) 16

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	1	1	0	0
26.27	+	5	4	+	+
24.25	2	17	30	2	+
22.23	2	9	22	5	0
20.21	0	1	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

302

WIND SPEED (KTS) 20

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	0	+	0	0
28.29	+	+	+	0	0
26.27	+	2	2	+	0
24.25	1	13	13	3	+
22.23	3	20	18	5	+
20.21	+	6	6	3	+
18.19	0	+	1	1	0
16.17	0	+	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1461

WIND SPEED (KTS) 21

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	+	1	1	0	0
22.23	1	4	5	1	+
20.21	1	17	20	7	+
18.19	+	14	11	4	0
16.17	0	2	4	3	1
14.15	0	+	+	+	0
12.13	0	0	+	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0

475

WIND SPEED (KTS) 22

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
26.27	0	0	+	0	0
24.25	0	0	+	0	0
22.23	+	+	+	0	0
20.21	+	1	1	+	+
18.19	2	6	3	+	+
16.17	7	19	16	1	+
14.15	6	16	12	4	0
12.13	1	2	3	+	0
10.11	0	+	+	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

724

WIND SPEED (KTS) 23

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
20.21	0	+	1	+	0
18.19	1	3	5	2	+
16.17	1	11	19	7	1
14.15	1	11	18	7	1
12.13	+	2	4	2	1
10.11	0	0	+	+	+
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

1609

WIND SPEED (KTS) 24

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	+	+	+	+	0
20.21	+	1	1	1	0
18.19	1	7	12	6	1
16.17	2	13	20	10	3
14.15	1	4	9	3	1
12.13	+	1	1	1	1
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

736

WIND SPEED (KTS) 25

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
18.19	0	0	0	+	0
16.17	0	1	2	2	0
14.15	0	5	11	9	1
12.13	1	6	20	7	2
10.11	+	7	11	6	1
8.9	0	1	3	2	+
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0

586

WIND SPEED (KTS) 29

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
18.19	0	+	+	0	0
16.17	0	+	3	1	+
14.15	+	6	12	5	2
12.13	1	9	14	8	3
10.11	+	5	10	8	2
8.9	+	1	4	4	1
6.7	0	0	0	+	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0

1084

WIND SPEED (KTS) 30

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
12.13	0	+	0	1	0
10.11	+	1	4	8	4
8.9	0	5	22	9	4
6.7	1	6	15	9	4
4.6	0	1	1	2	1
2.3	0	0	0	0	2

AIR TEMPERATURE

JUNE

temperature (°C) and wind speed

with wind speed of 22-33 kts)

is explained in the text.

ced due to heat)

less than the given value)

than the given value)

13

33 > 34

0 0
0 0
1 0
4 0
3 +
+ 0
0 0
0 0
0 0
0 0
0 0
0 0
0 0
0 0

964

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
28.28	0	+	+	0	0
26.27	+	2	2	+	0
24.26	2	14	23	4	0
22.25	1	19	24	5	0
20.21	+	1	1	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.13	0	0	0	0	0
9.9	0	0	0	0	0

1203

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
28.28	0	0	+	0	0
26.27	+	1	0	0	0
24.26	+	2	2	1	0
22.25	1	10	10	3	0
20.21	3	14	27	11	0
18.19	2	6	7	1	+
16.17	0	1	0	0	0
14.16	0	0	0	0	0
12.13	0	0	0	0	0
9.9	0	0	0	0	0

434

WIND SPEED (KTS) 16

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
22.25	0	1	1	0	0
20.21	+	5	4	+	+
18.19	2	17	30	2	+
16.17	2	9	22	5	0
14.16	0	1	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

302

WIND SPEED (KTS) 17

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
28.28	0	0	+	0	0
26.27	+	1	1	0	+
24.26	+	3	3	+	+
22.25	3	18	15	3	0
20.21	3	16	16	2	1
18.19	+	6	5	1	0
16.17	0	+	+	+	0
14.16	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

638

WIND SPEED (KTS) 18

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
26.27	+	1	+	0	0
24.26	1	7	6	1	+
22.25	2	16	15	3	1
20.21	2	13	17	3	+
18.19	+	4	5	1	+
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

564

WIND SPEED (KTS) 19

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
24.26	0	0	+	0	0
22.25	+	1	1	+	0
20.21	1	7	11	4	1
18.19	1	14	20	9	2
16.17	1	9	12	3	+
14.16	+	1	1	1	+
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

1135

22

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
20.21	0	+	1	+	0
18.19	1	3	5	2	+
16.17	1	11	19	7	1
14.16	1	11	18	7	1
12.13	+	2	4	2	1
10.11	0	0	+	+	+
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

724

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
22.25	+	+	+	+	0
20.21	+	1	1	1	0
18.19	1	7	12	6	1
16.17	2	13	20	10	3
14.16	1	4	9	3	1
12.13	+	+	1	1	1
10.11	0	0	0	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
2.3	0	0	0	0	0

736

WIND SPEED (KTS) 25

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
18.19	0	0	0	+	0
16.17	0	1	2	2	0
14.16	0	5	11	9	1
12.13	1	6	20	7	2
10.11	+	7	11	6	1
8.0	0	1	3	2	+
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0

586

WIND SPEED (KTS) 26

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
20.21	+	+	+	0	0
18.19	7	1	4	3	+
16.17	1	9	18	7	2
14.16	3	11	16	7	3
12.13	1	7	2	3	0
10.11	0	+	+	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0

371

WIND SPEED (KTS) 27

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
22.25	0	+	0	+	0
20.21	+	2	+	+	+
18.19	3	11	9	2	0
16.17	6	21	17	5	1
14.16	4	7	6	3	+
12.13	0	+	1	1	+
10.11	0	0	+	0	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

332

WIND SPEED (KTS) 28

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
20.21	0	0	+	0	0
18.19	0	+	0	0	0
16.17	2	4	3	+	+
14.16	5	18	16	5	4
12.13	4	9	12	4	1
10.11	1	3	3	2	1
8.0	0	+	0	0	+
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

437

31

WIND SPEED (KTS) 32

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
14.16	0	0	1	+	+
12.13	+	2	4	5	1
10.11	1	7	19	7	5
8.0	6	5	11	8	9
6.7	1	2	1	2	2
4.6	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0

223

WIND SPEED (KTS) 33

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
14.16	0	+	0	+	0
12.13	+	1	3	2	1
10.11	2	7	12	8	3
8.0	1	10	13	9	5
6.7	1	5	6	4	3
4.6	+	+	+	+	+
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

811

WIND SPEED (KTS) 34

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
10.11	0	2	2	0	0
8.0	0	6	27	8	8
6.7	0	8	12	10	2
4.6	2	2	2	2	0
2.3	0	2	0	0	2
0.1	0	0	0	0	2
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

49

WIND SPEED (KTS) 35

TEMP (°C)	0-3	4-10	11-21	22-33	> 34
8.7	0	7	16	0	2
4.6	2	11	15	6	0
2.3	6	9	5	4	2
0.1	1	1	2	0	0
-2.1	0	0	4	4	2
-4.3	0	0	3	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0
-12.11	0	0	0	0	0
-14.13	0	0	0	0	0

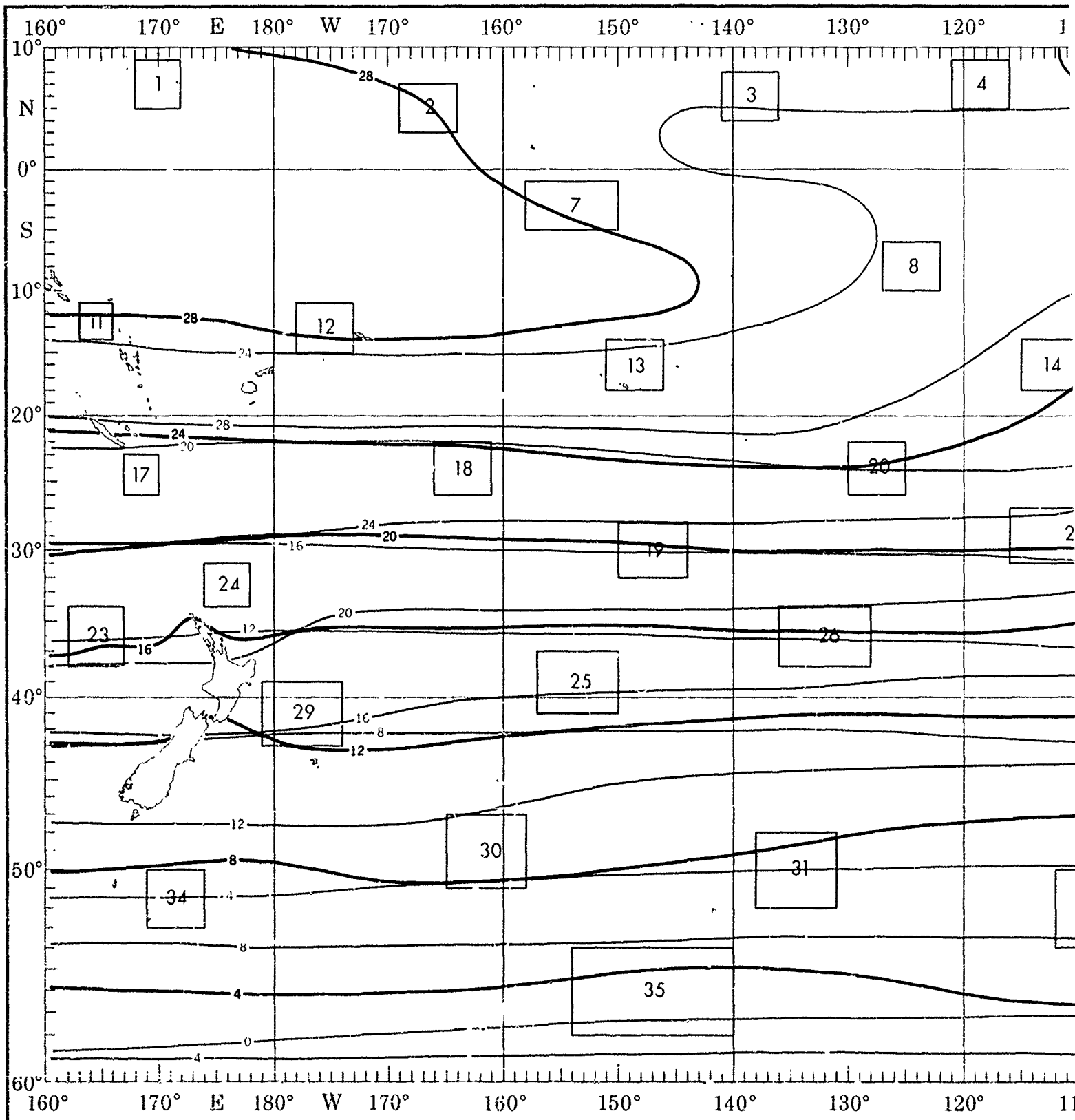
103

WIND SPEED (KTS) 36

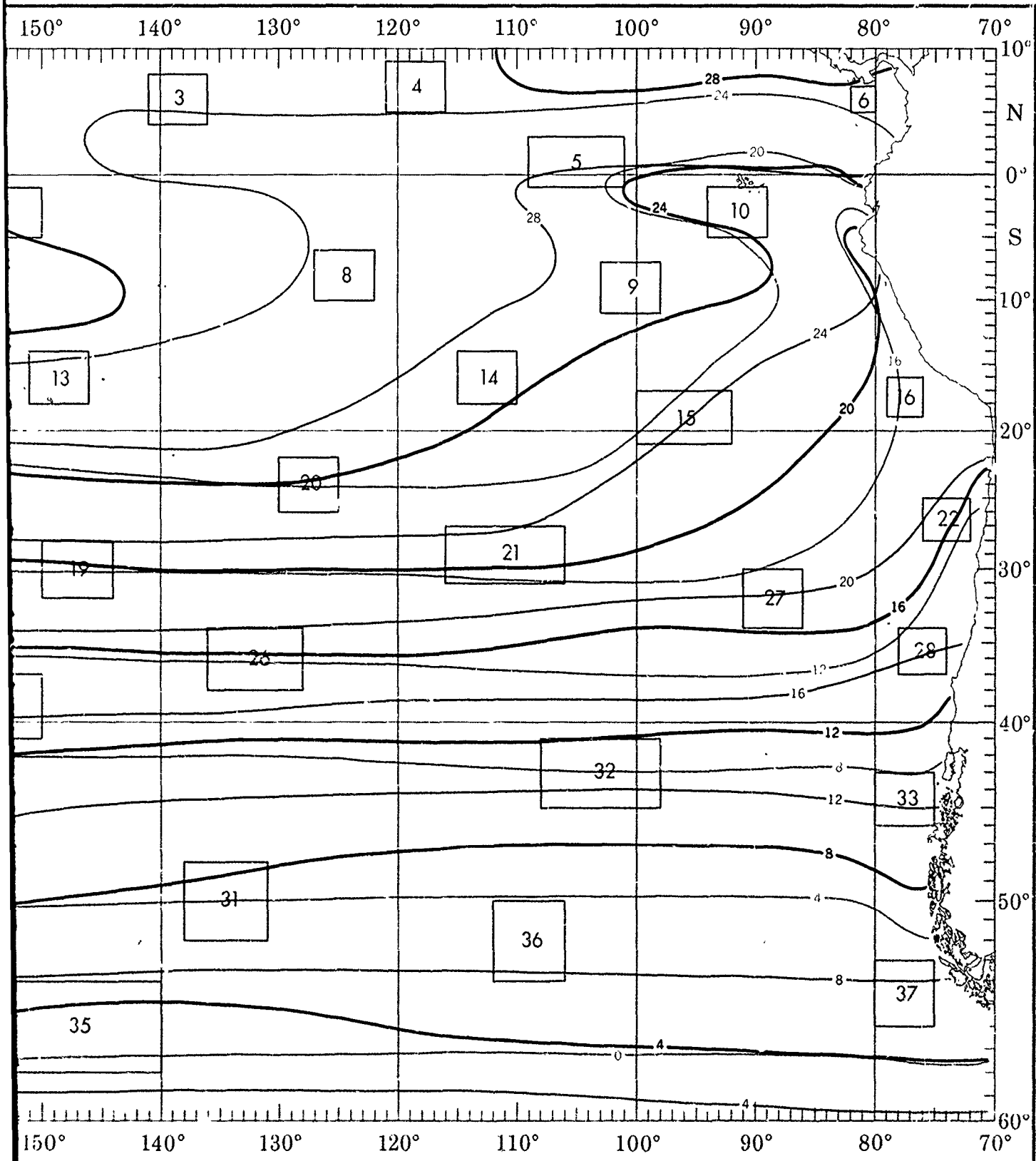
TEMP (°C)	0-3	4-10	11-21	22-33	> 34
10.11	0	0	0	0	+
8.0	0	0	1	2	2
6.7	1	12	21	10	4
4.6	1	8	8	13	6
2.3	1	2	5	3	1
0.1	0	0	0	0	+
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

JUNE

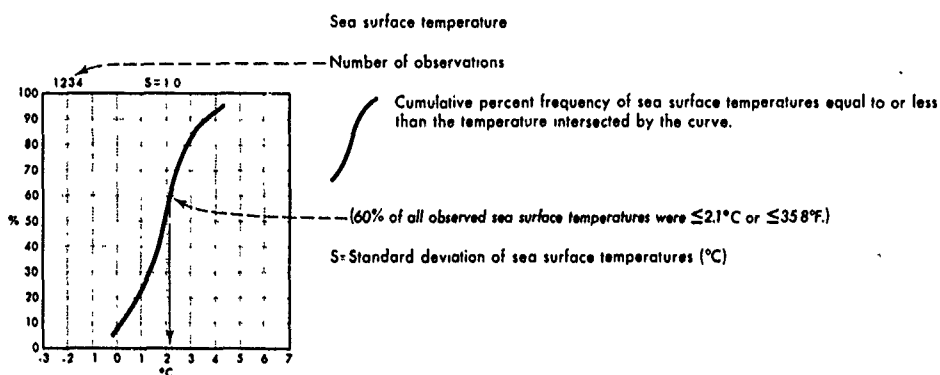
SEA S



SEA SURFACE TEMPERATURE



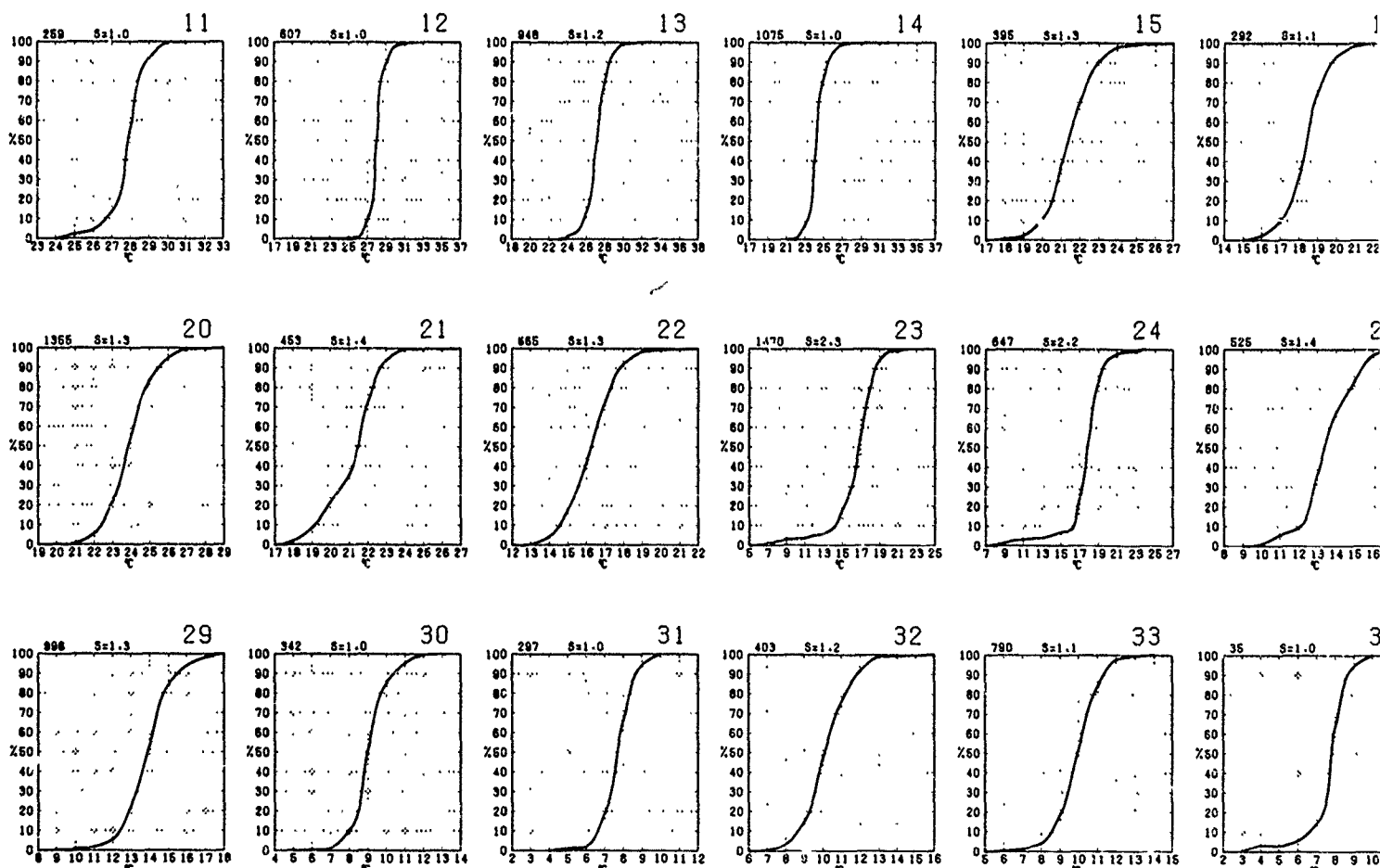
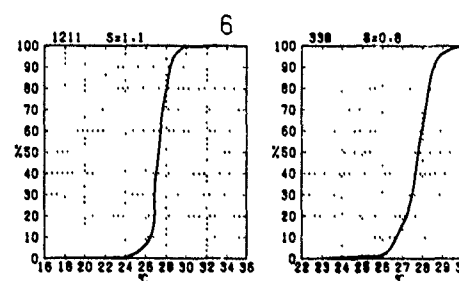
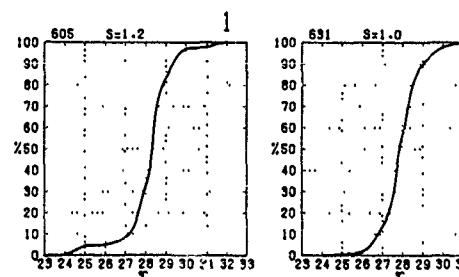
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

ATURE

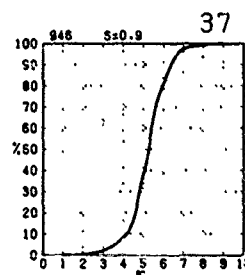
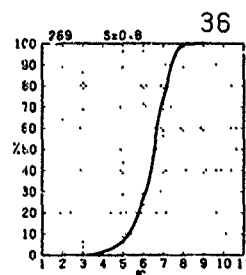
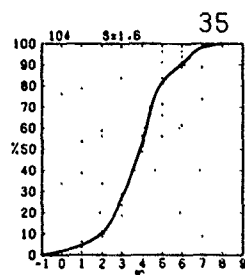
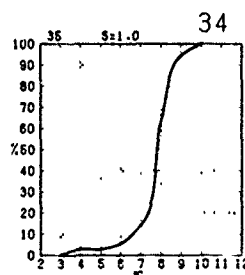
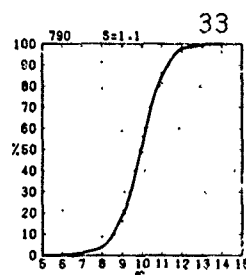
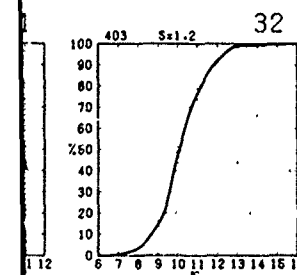
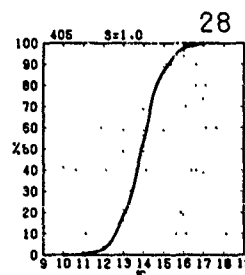
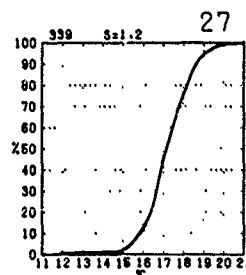
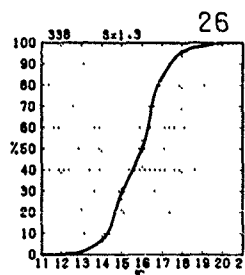
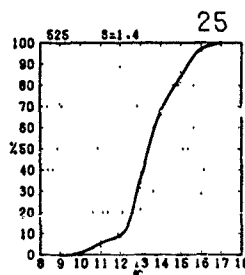
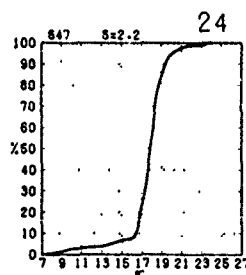
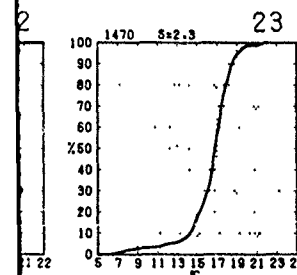
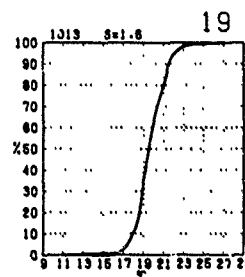
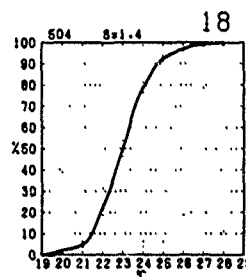
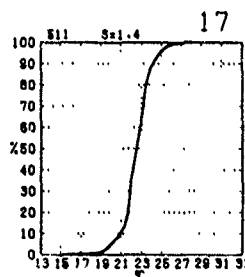
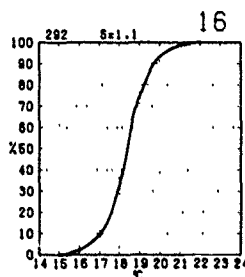
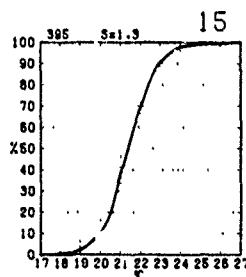
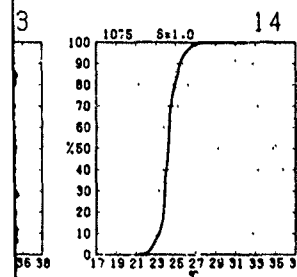
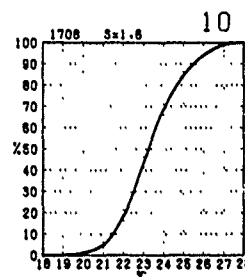
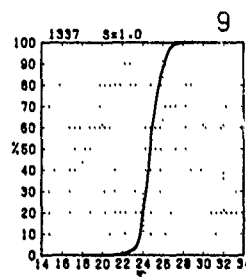
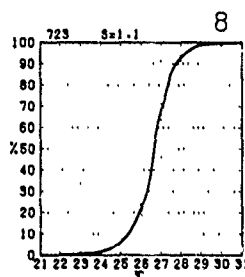
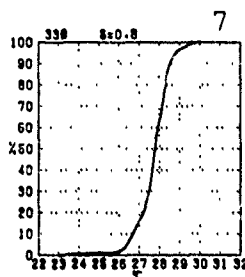
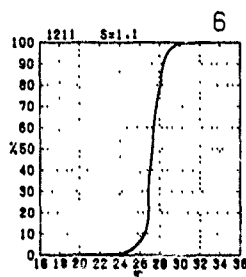
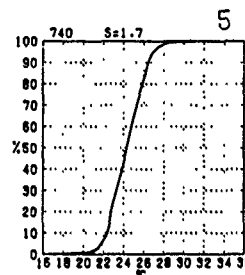
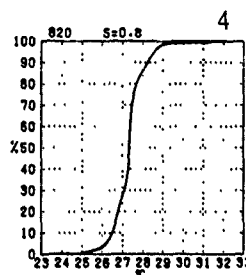
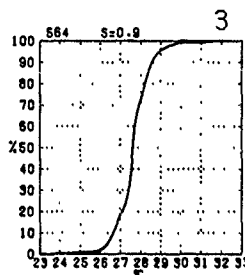
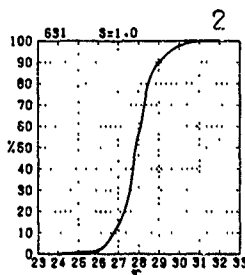
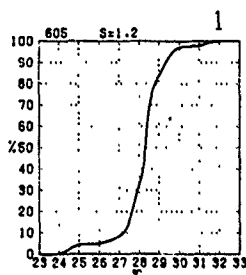
JUNE

temperatures equal to or less

*C or $\leq 35.8^{\circ}\text{F}$)

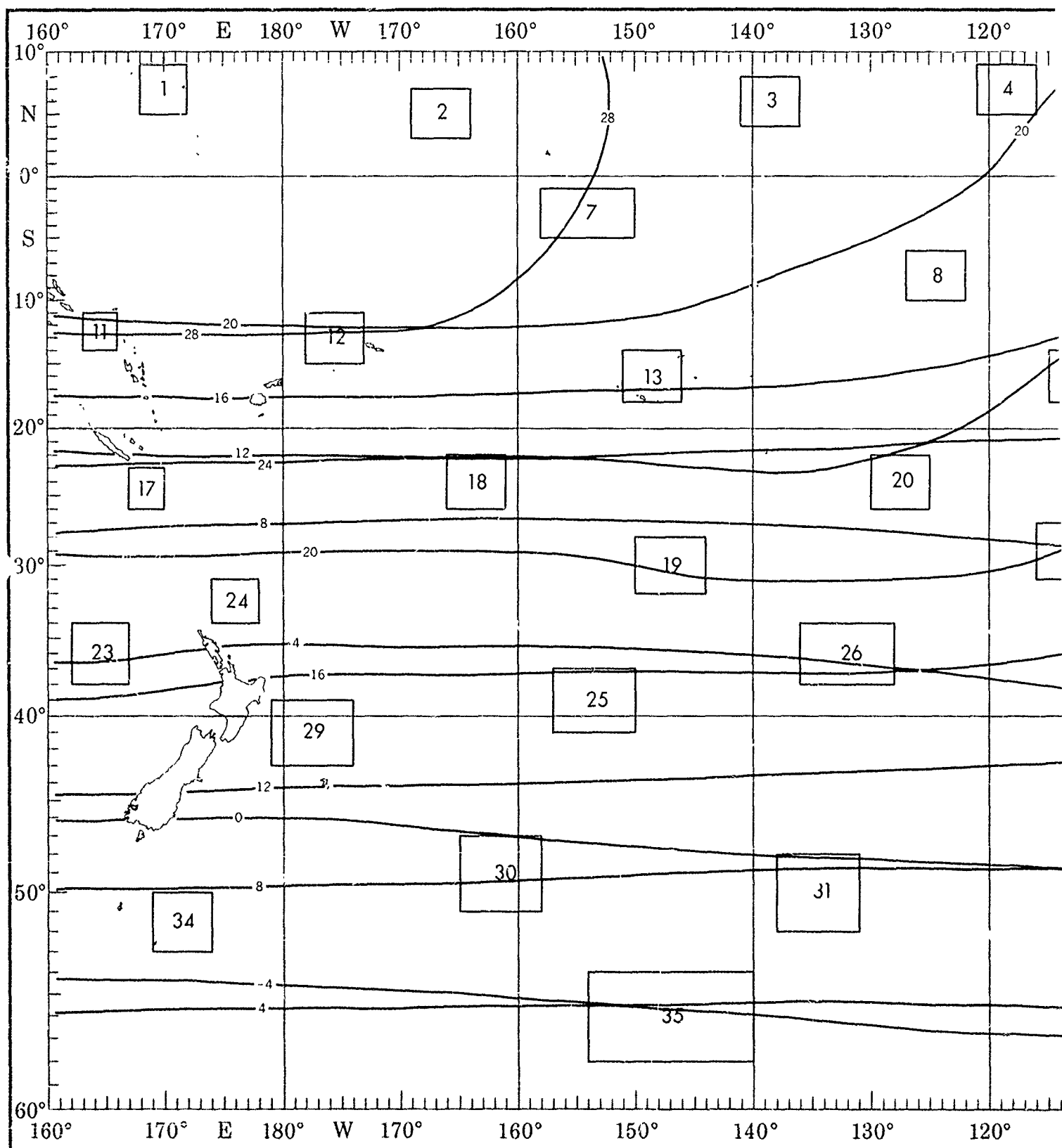
to or less than the given

water than the given value)

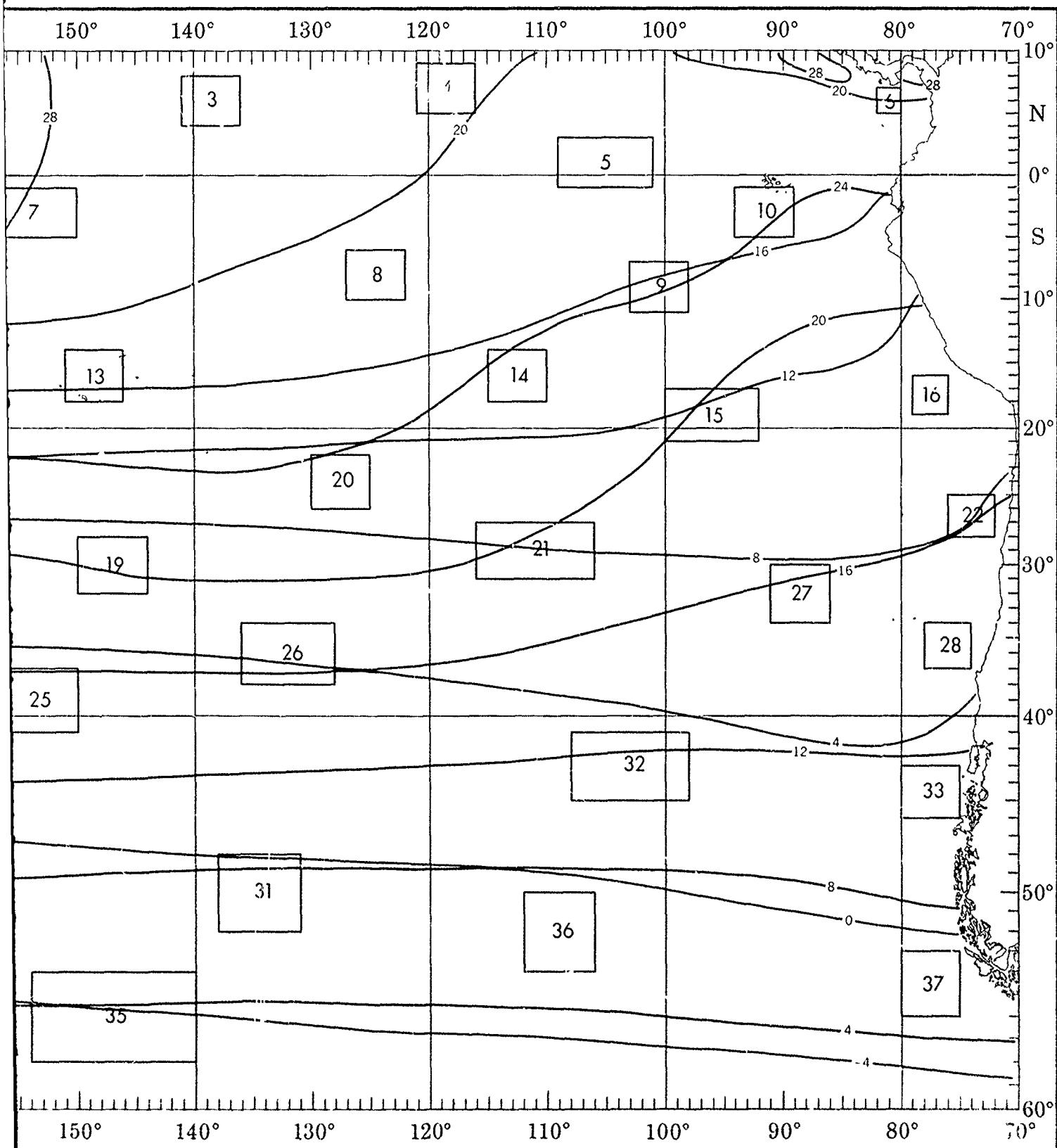


the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

JUNE



HUMIDITY



1

1

2

WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

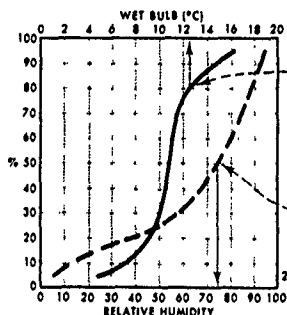
Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).

Wet bulb (°C)
 (80% of all observed wet-bulb temperatures were $\leq 12.5^\circ\text{C}$ or 54.5°F .)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale)

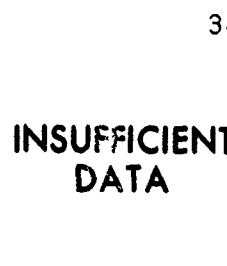
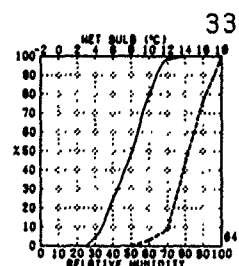
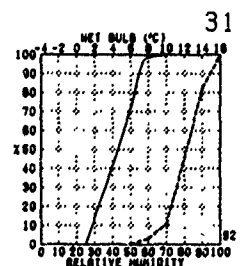
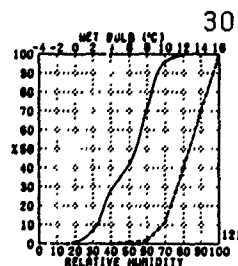
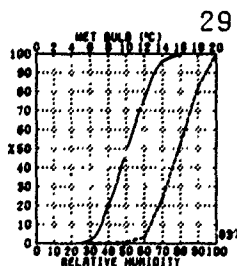
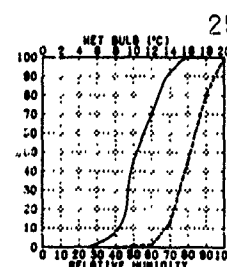
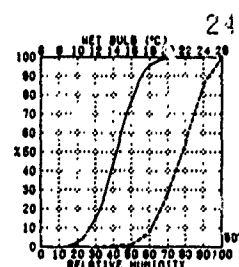
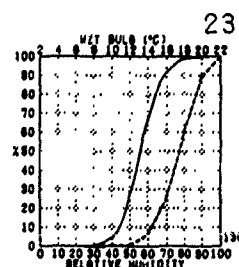
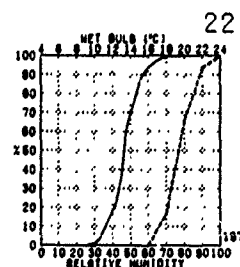
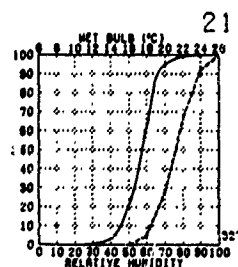
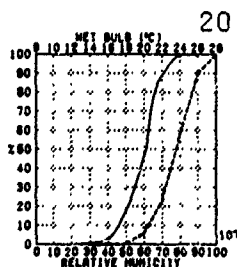
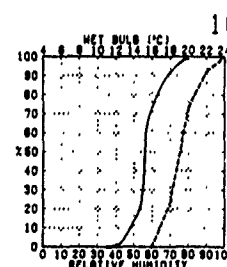
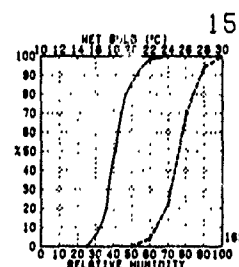
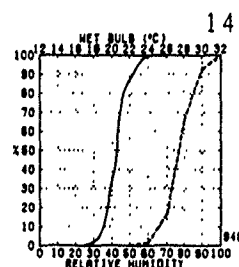
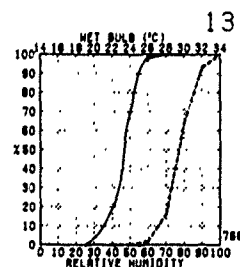
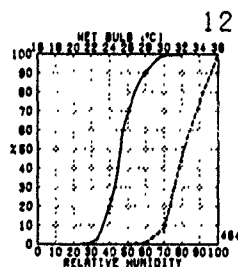
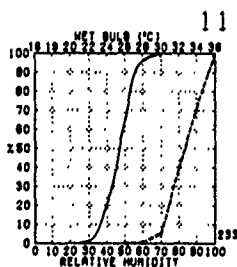
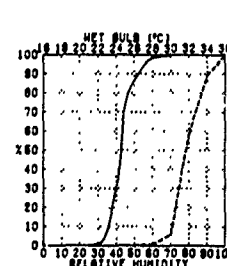
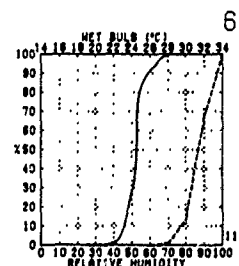
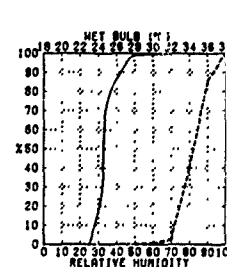
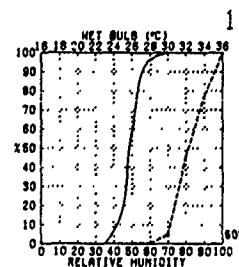
Relative humidity (%)
 (50% of all observed relative humidities were $\leq 74\%$)

Number of observations



BLUE LINE - Minimum (1%) dew-point temperature (°C) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature (°C) (1% of the computed values were greater than the given value)



INSUFFICIENT DATA

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

VE HUMIDITY

JUNE

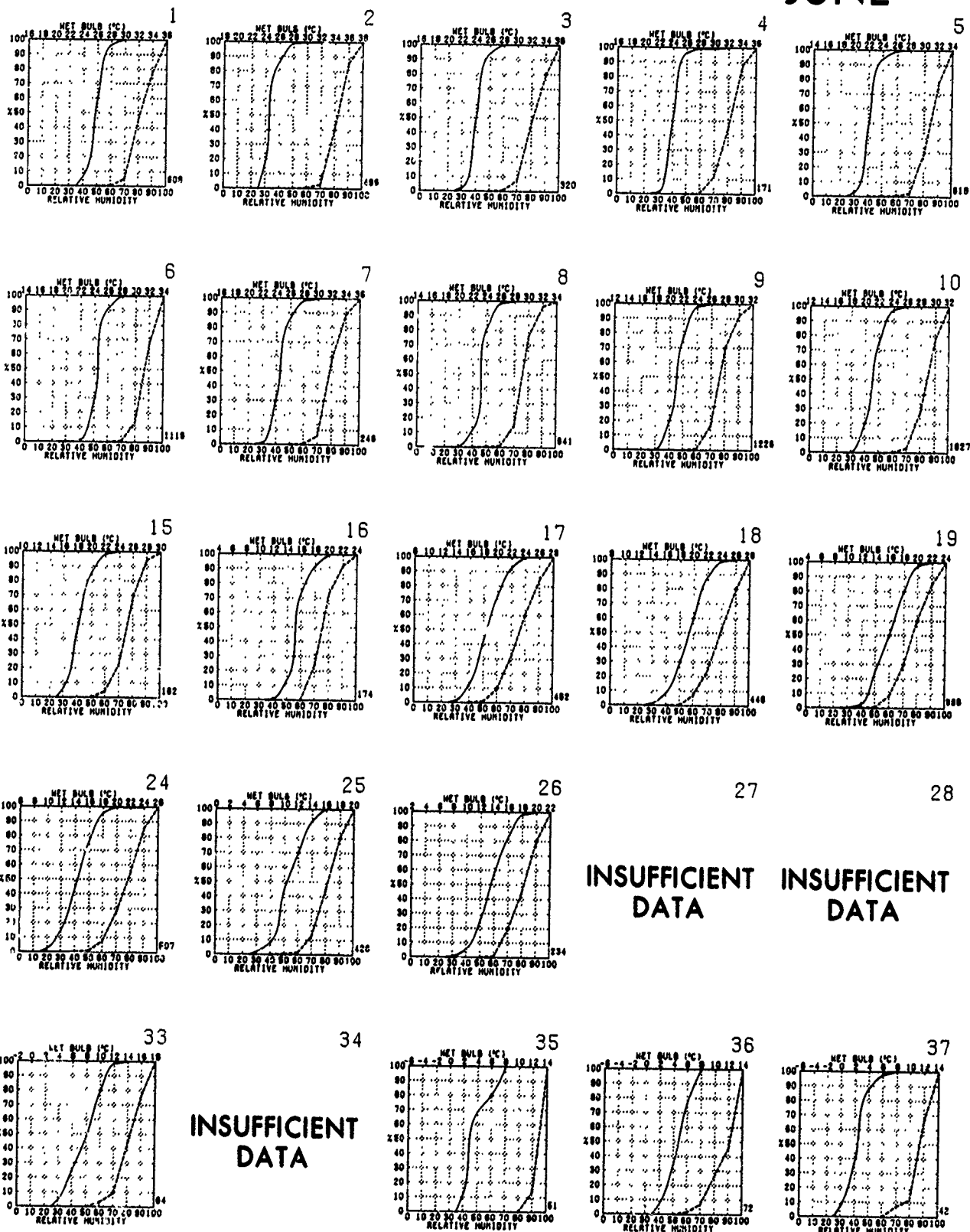
al to or less than the

4.5°F.)

o or less than the humidity

or less than the given

r than the given value)

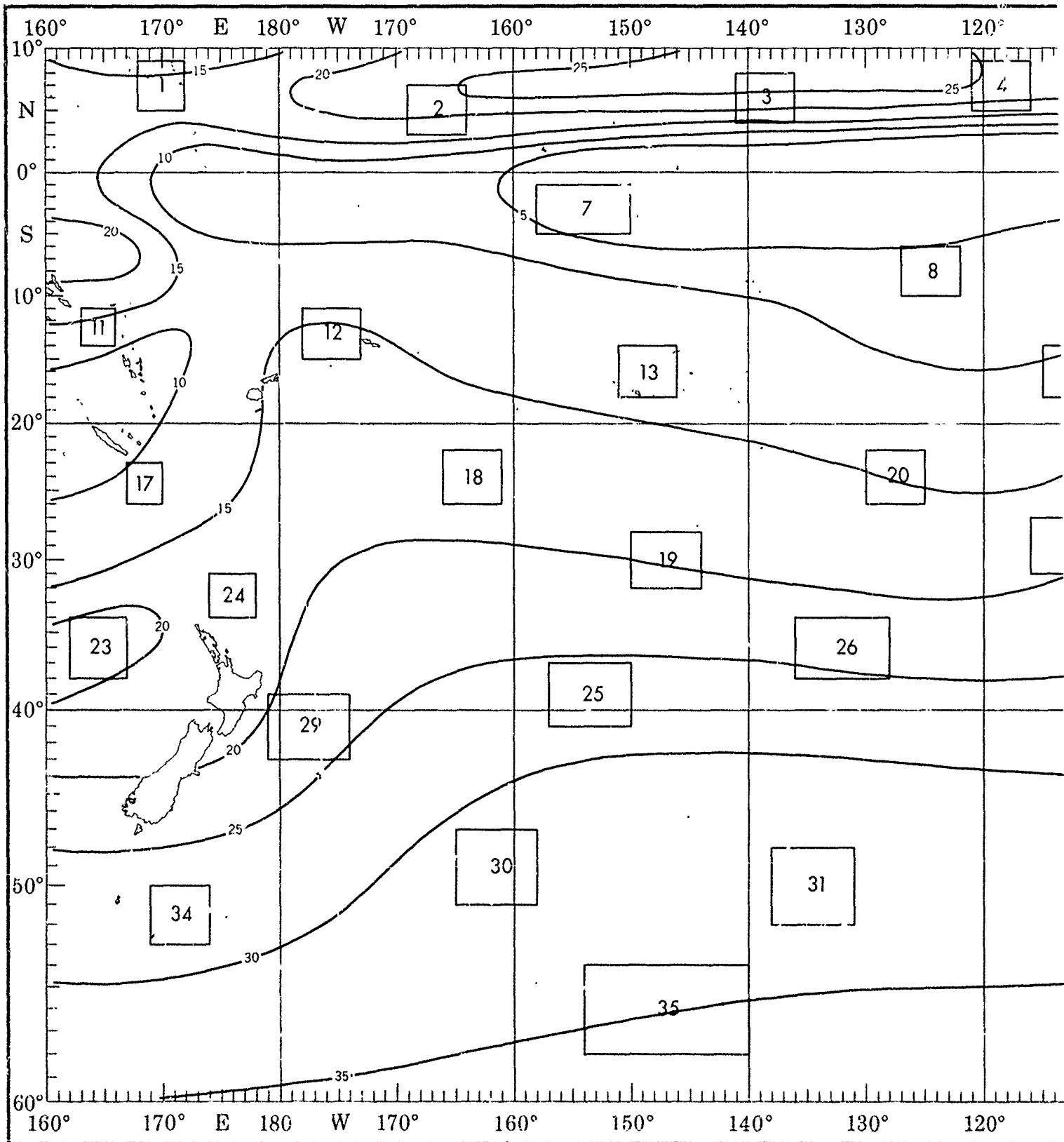


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DATA

INSUFFICIENT
DATA

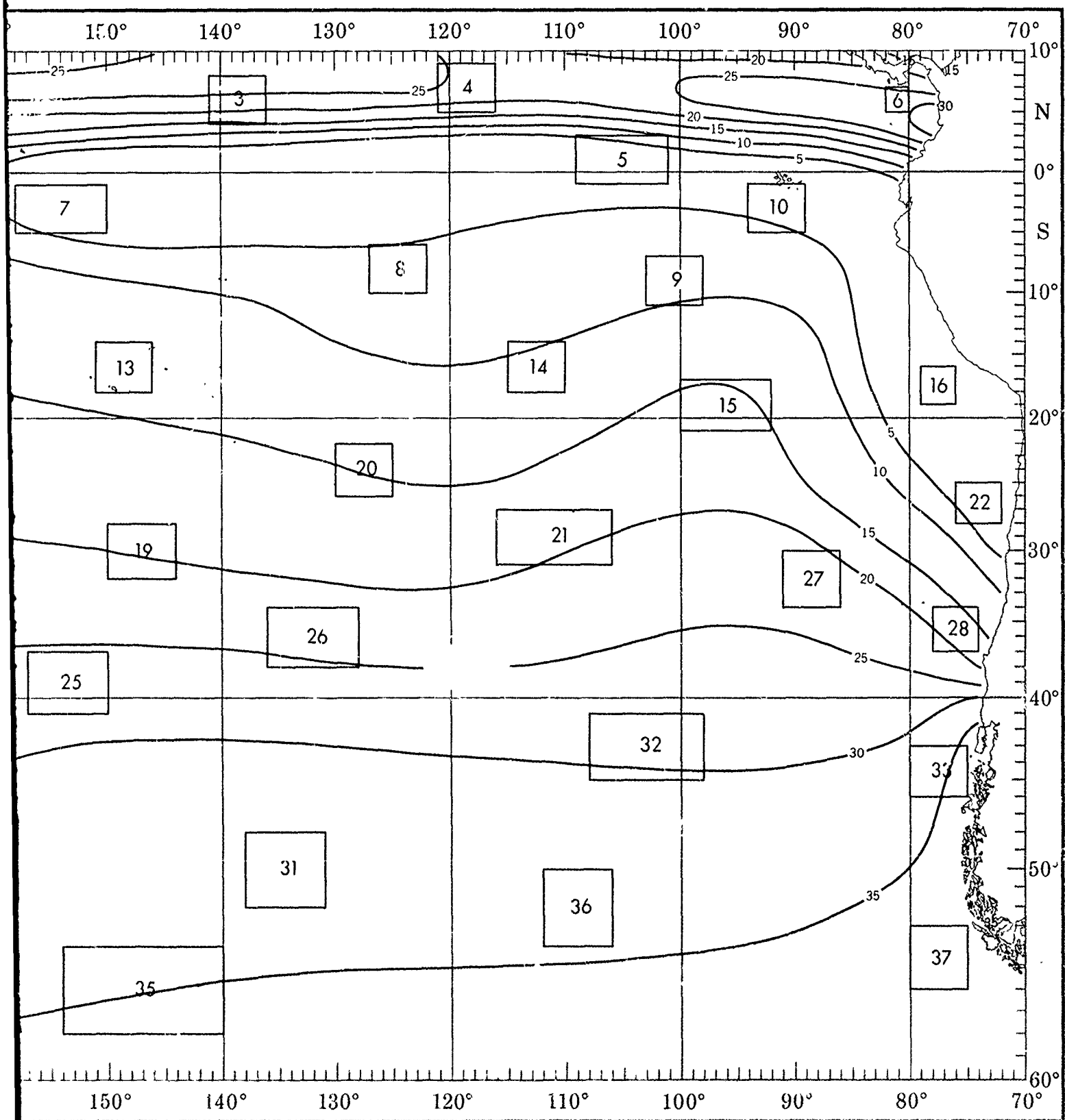
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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7

PRECIPITATION



1

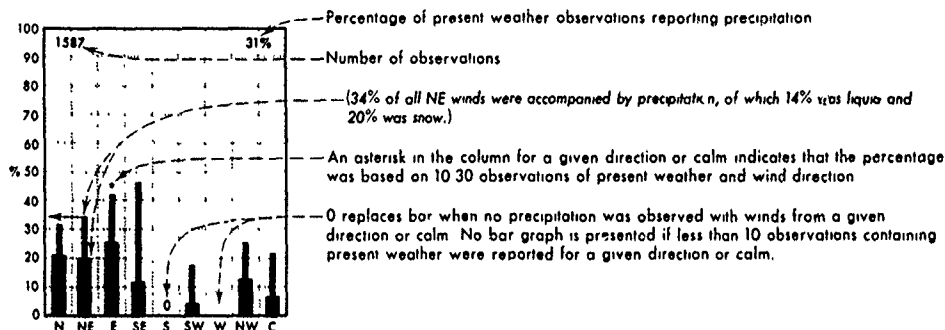
1

2

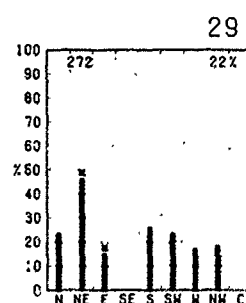
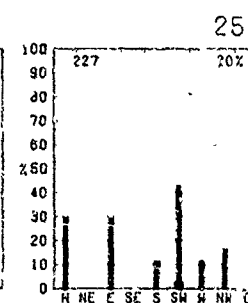
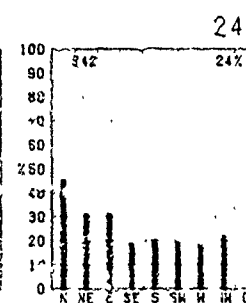
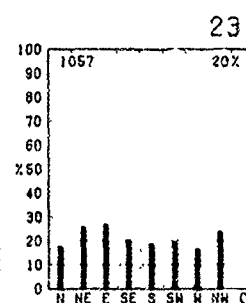
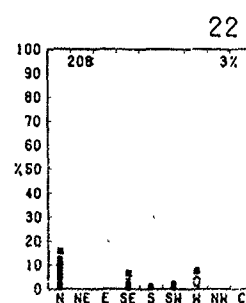
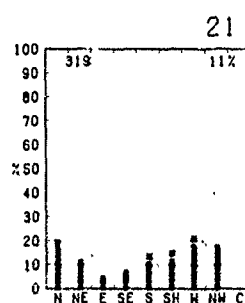
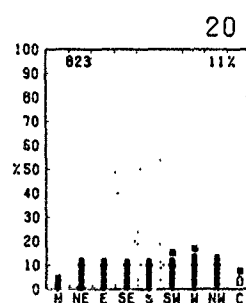
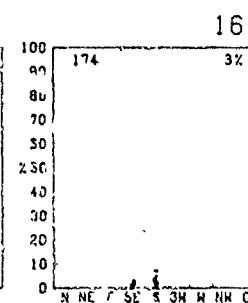
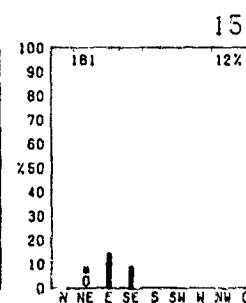
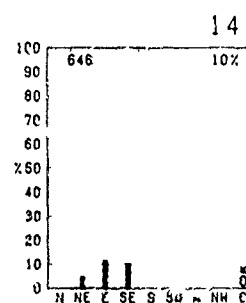
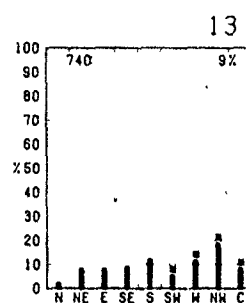
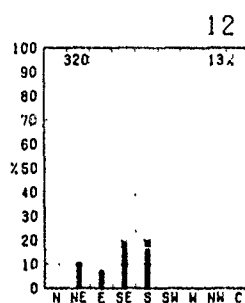
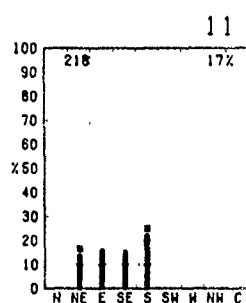
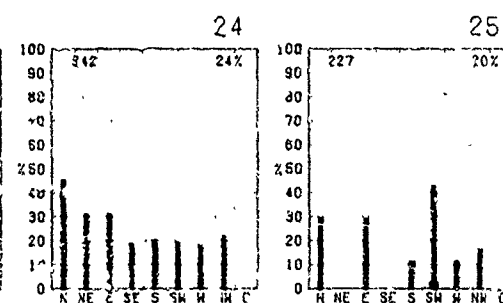
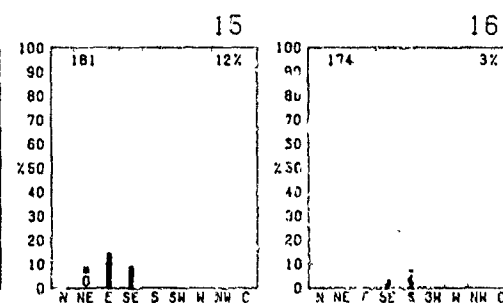
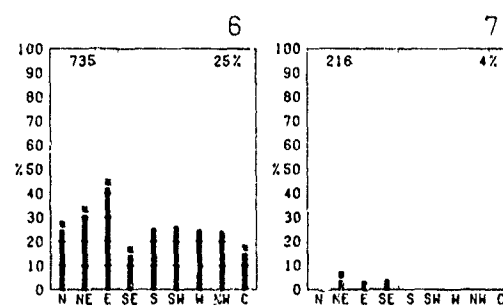
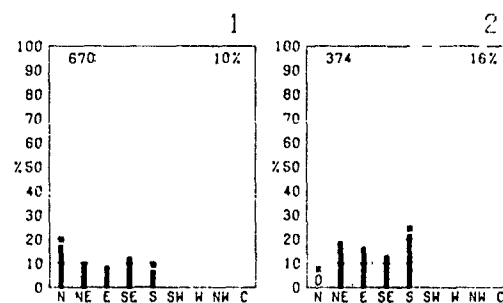
PRECIPITATION

% Pcpn % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow



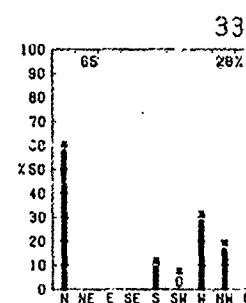
RED LINE - Percent frequency of observations reporting precipitation



INSUFFICIENT DATA

INSUFFICIENT DATA

INSUFFICIENT DATA



INSUFFICIENT DATA

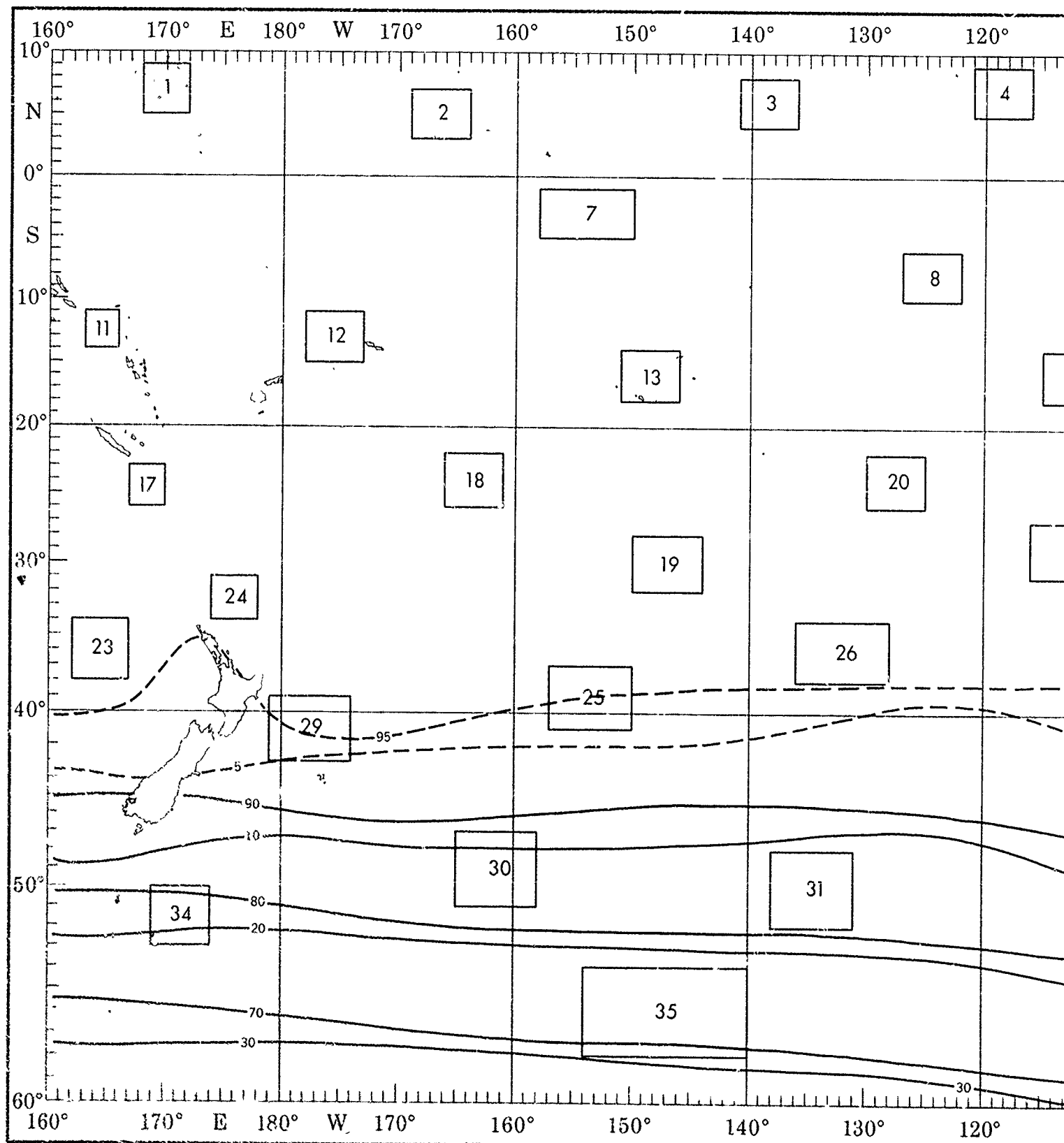
Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

with winds from a given
than 10 observations containing
or calm

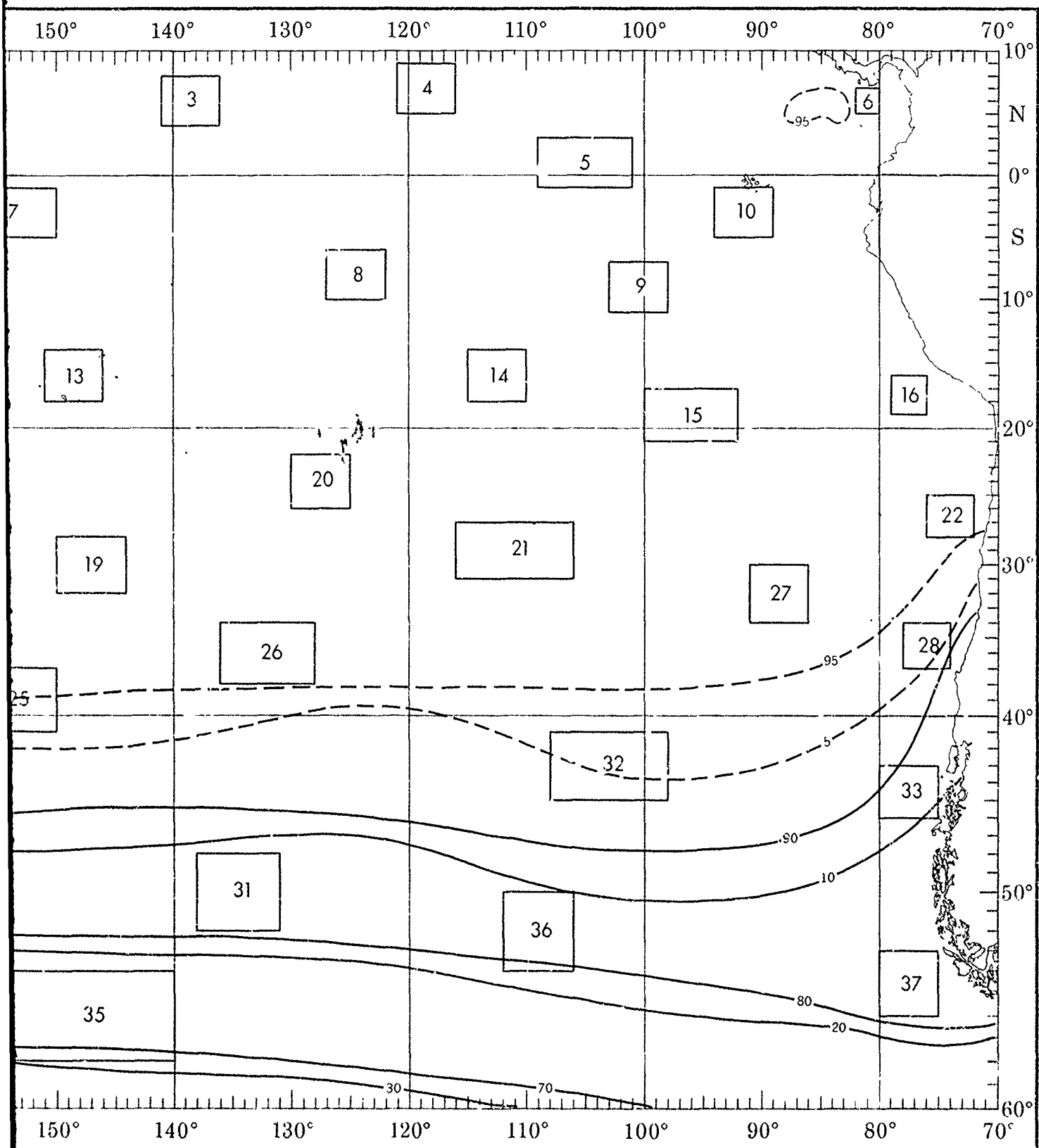


153

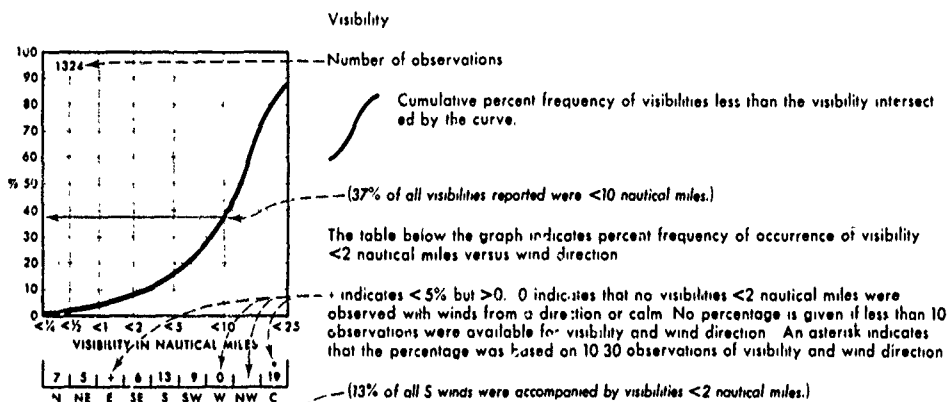
JUNE



VISIBILITY

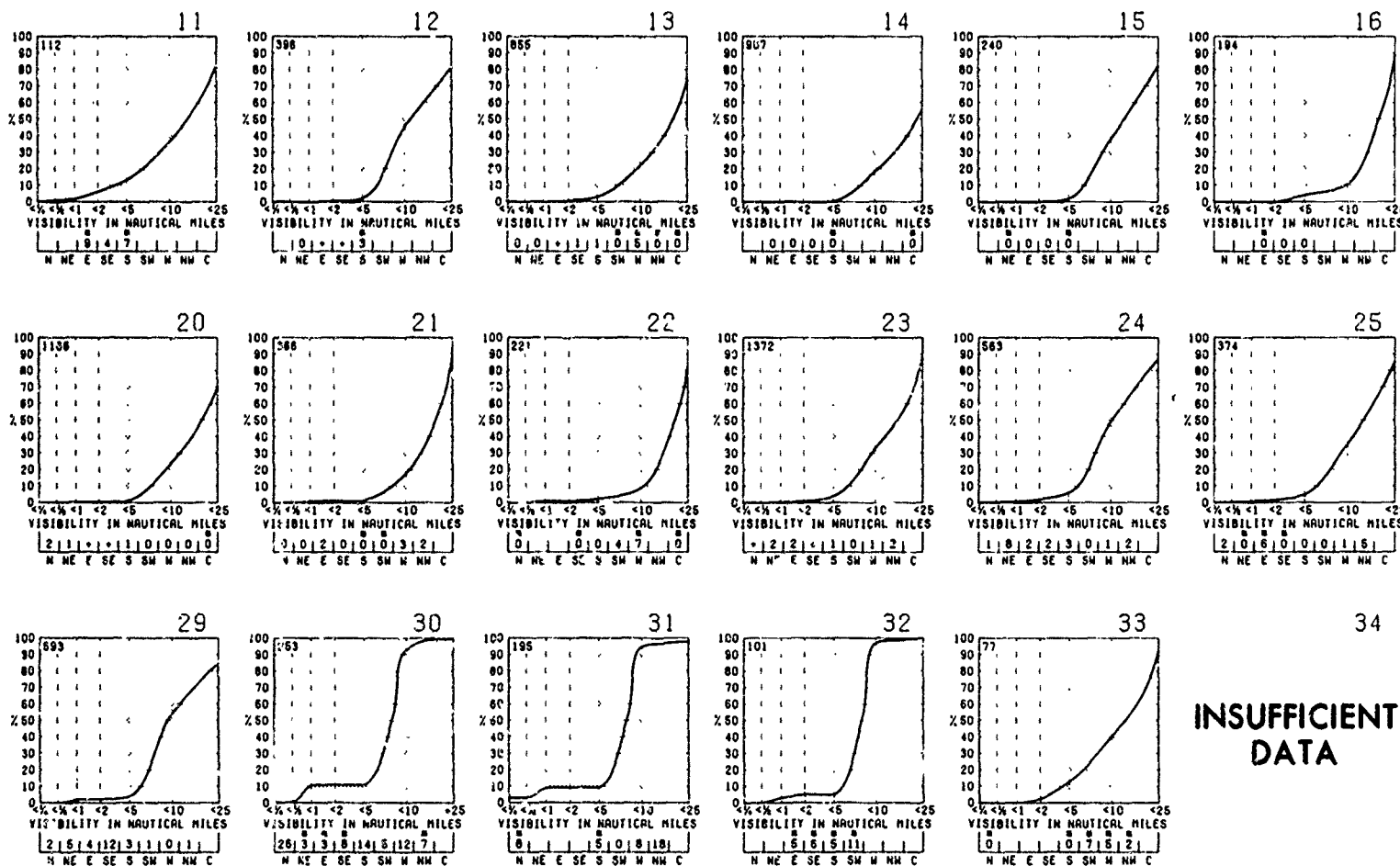
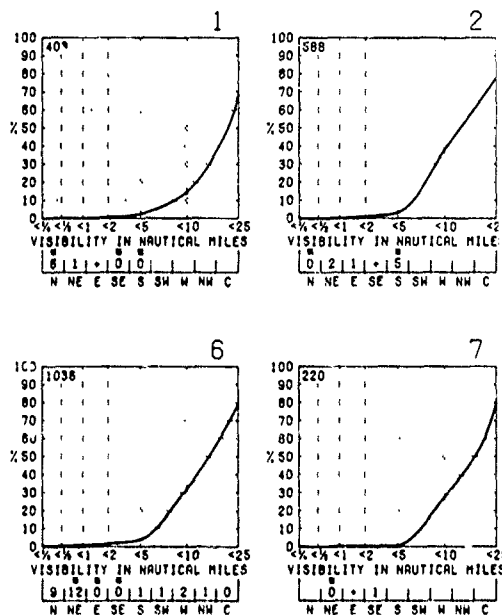


VISIBILITY



BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

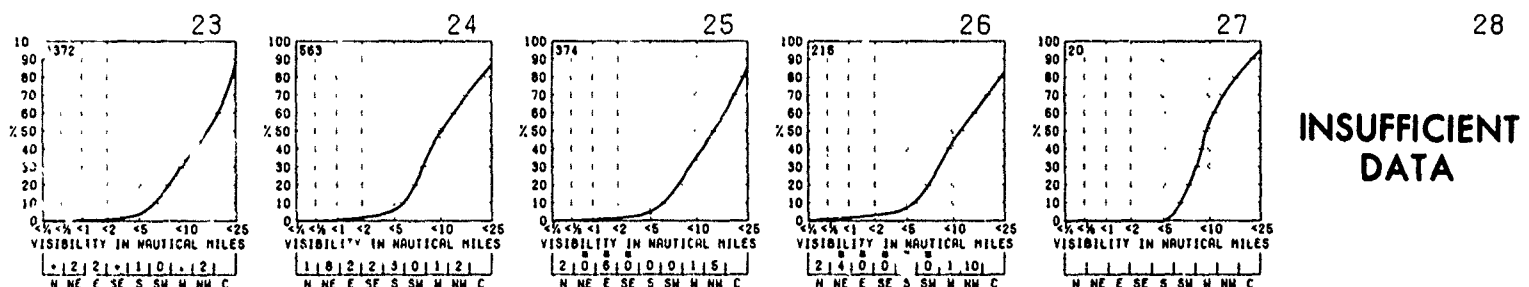
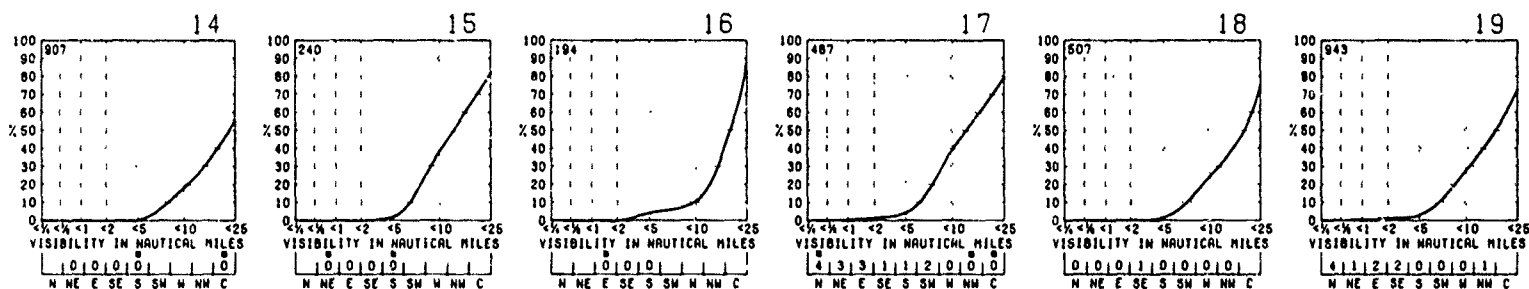
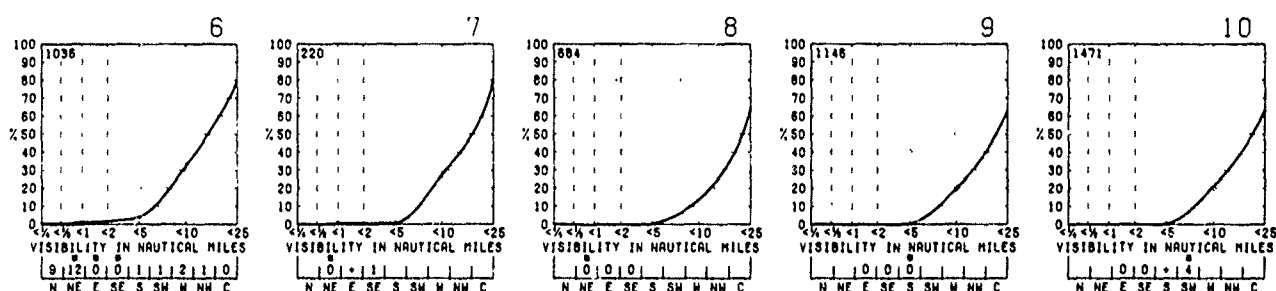
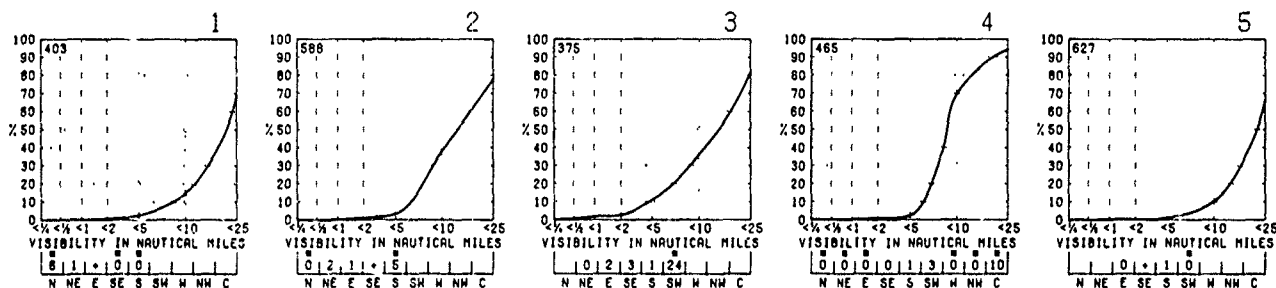
RED LINE - Percent frequency of visibilities <2 nautical miles



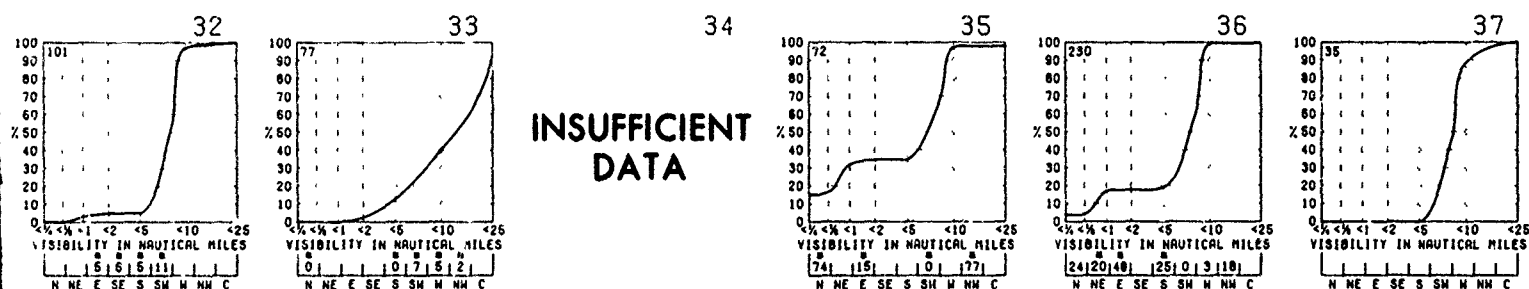
INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

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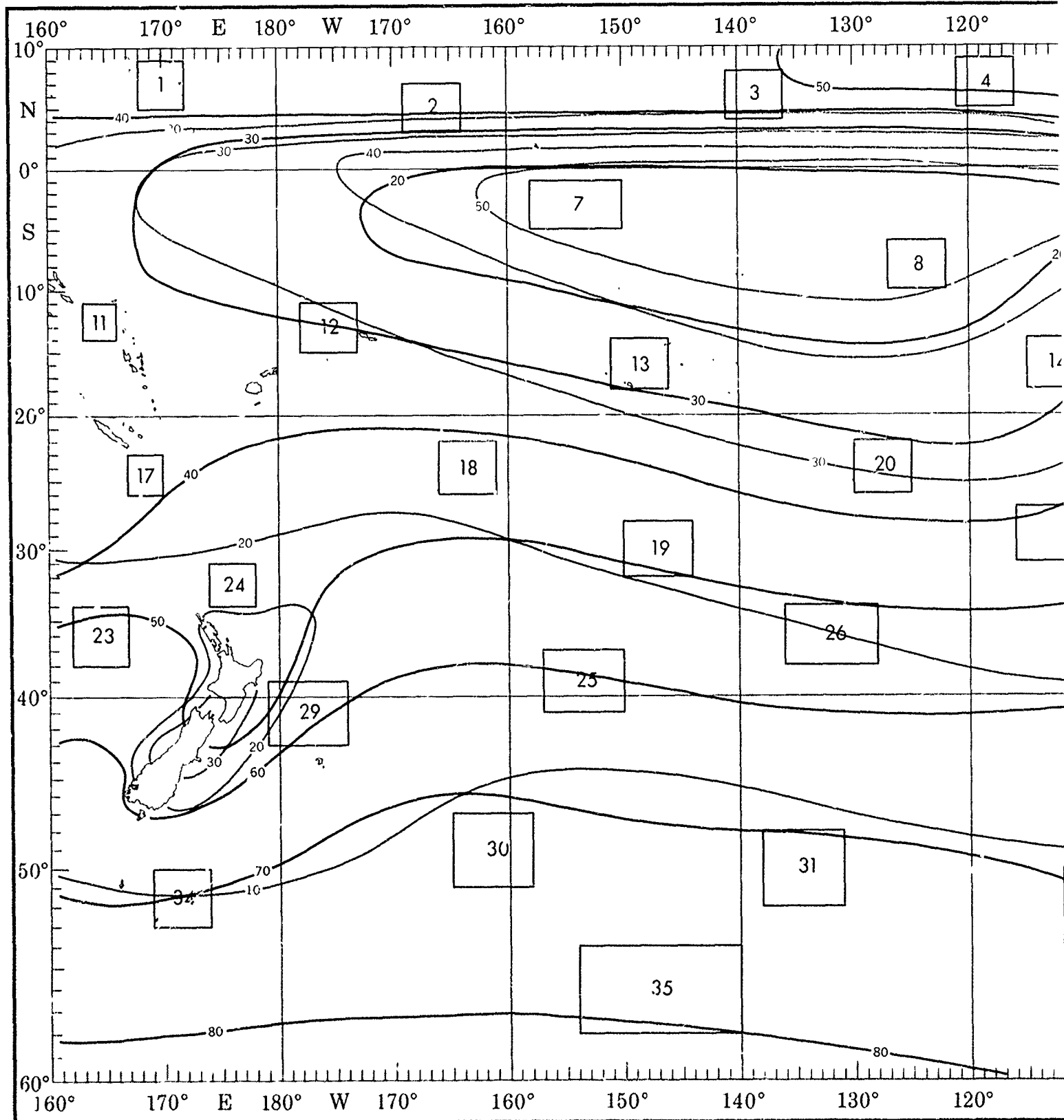
the objective compilation of available data for specified areas without regard to suspected biases.
s (opposite page) are based on all available data subjectively adjusted where bias was evident.

5

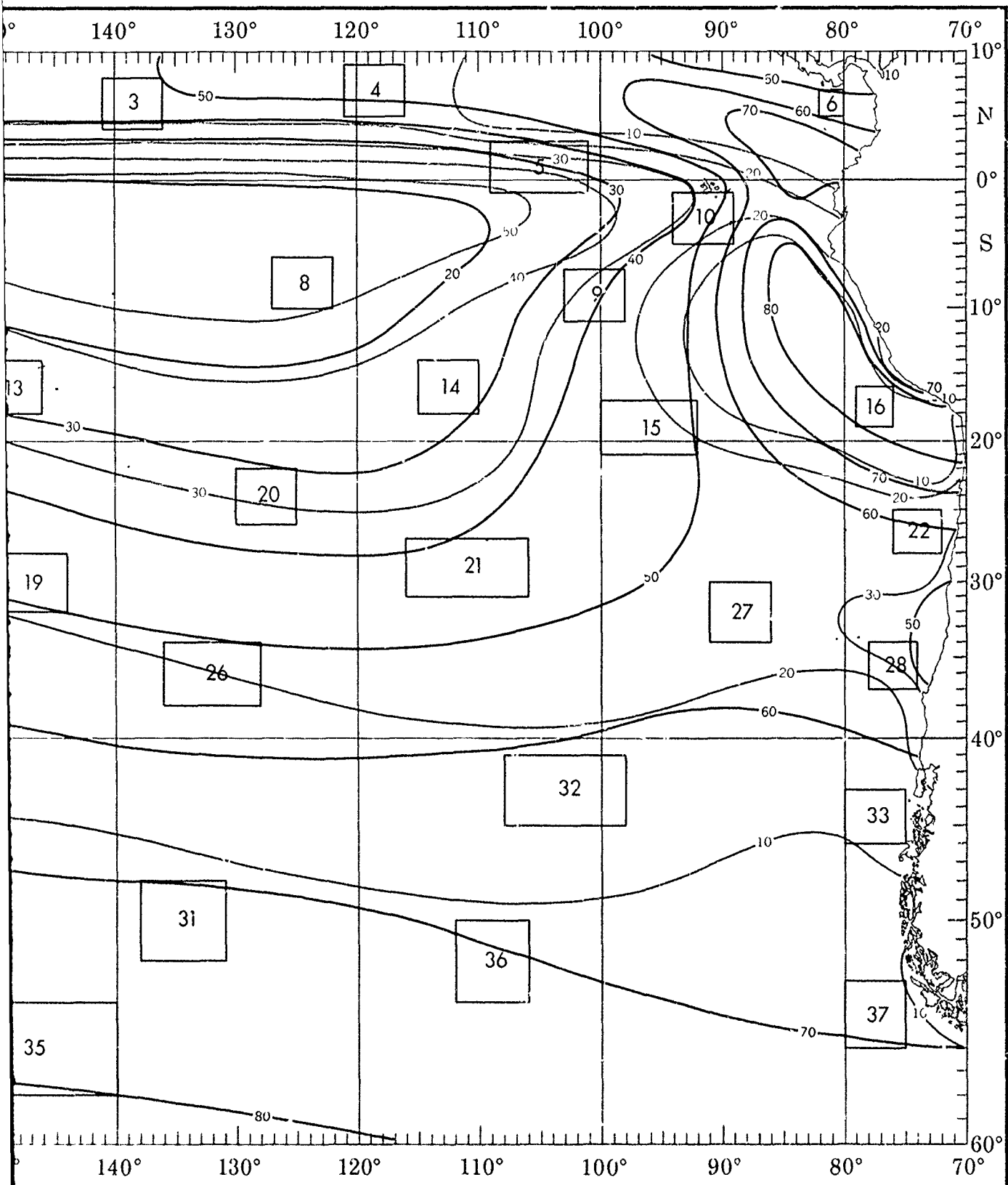
1

2

JUNE



CLOUD COVER

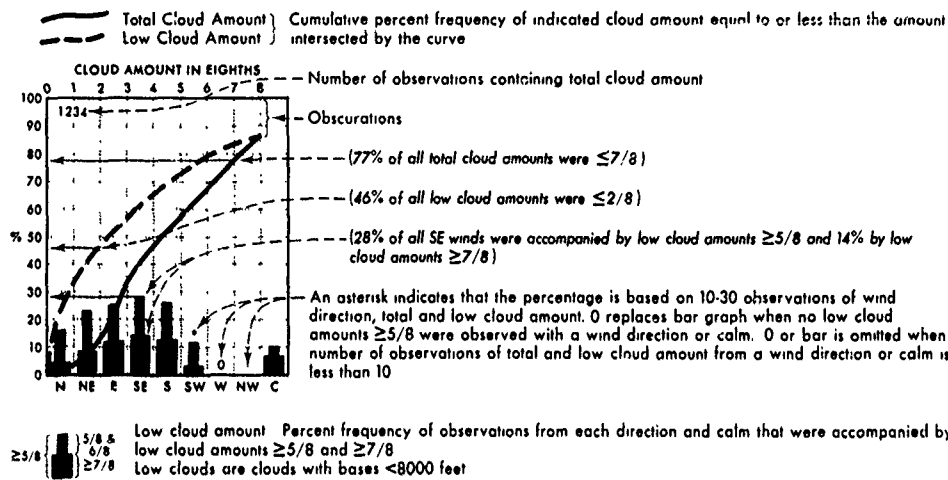


1

1

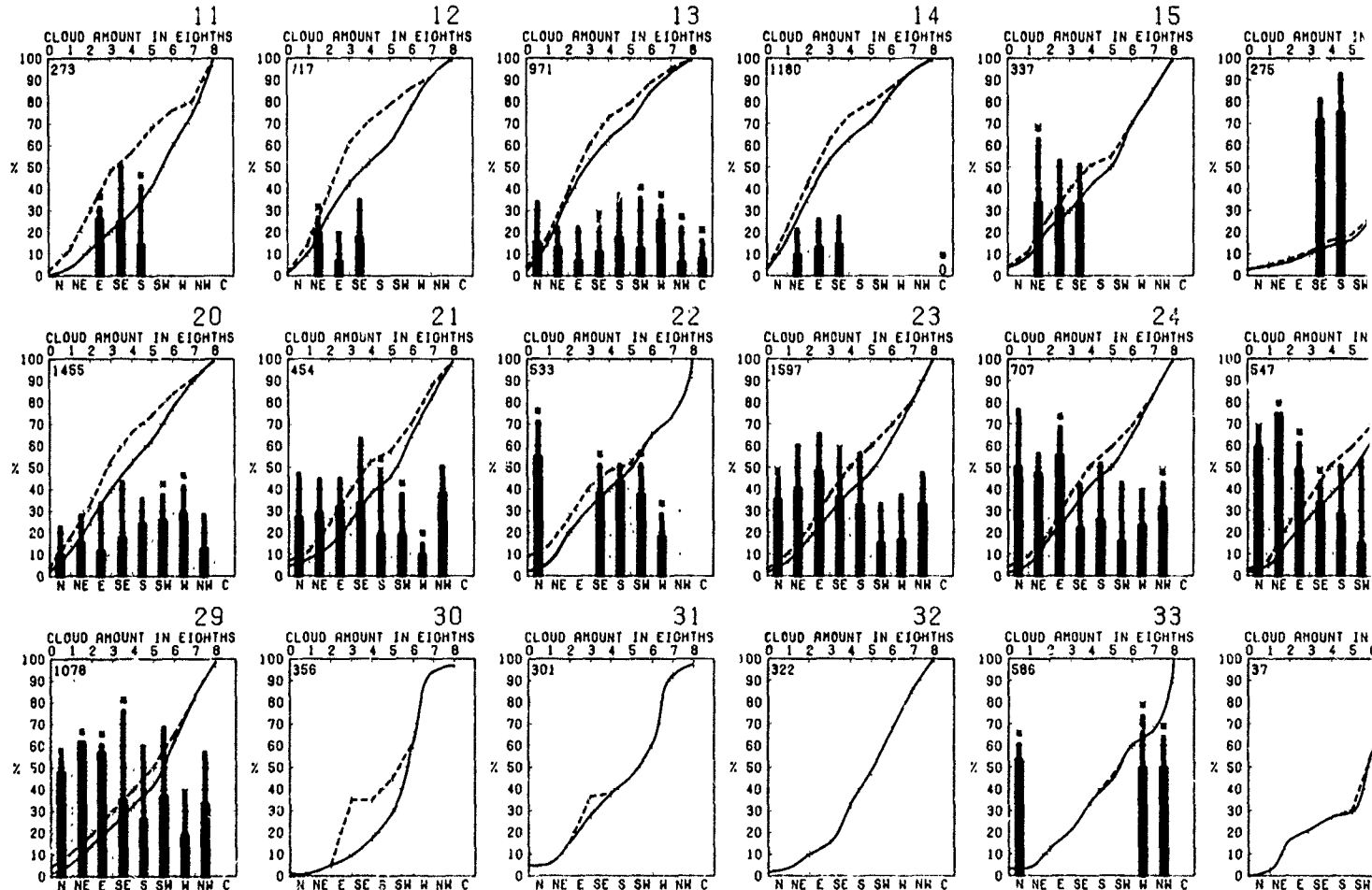
2

CLOUD COVER



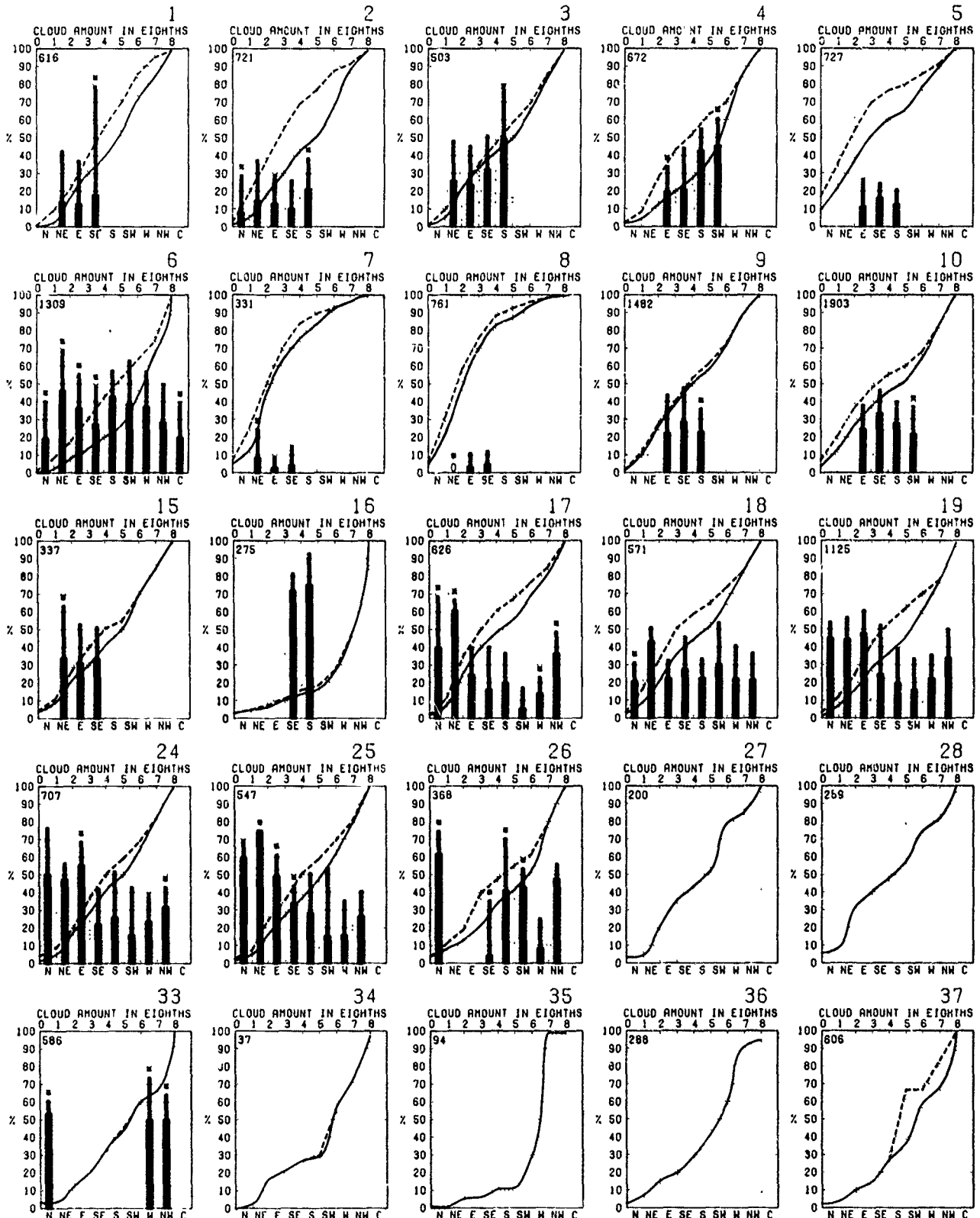
BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without
 The isopleth analyses (opposite page) are based on all available data subjectively adjusted

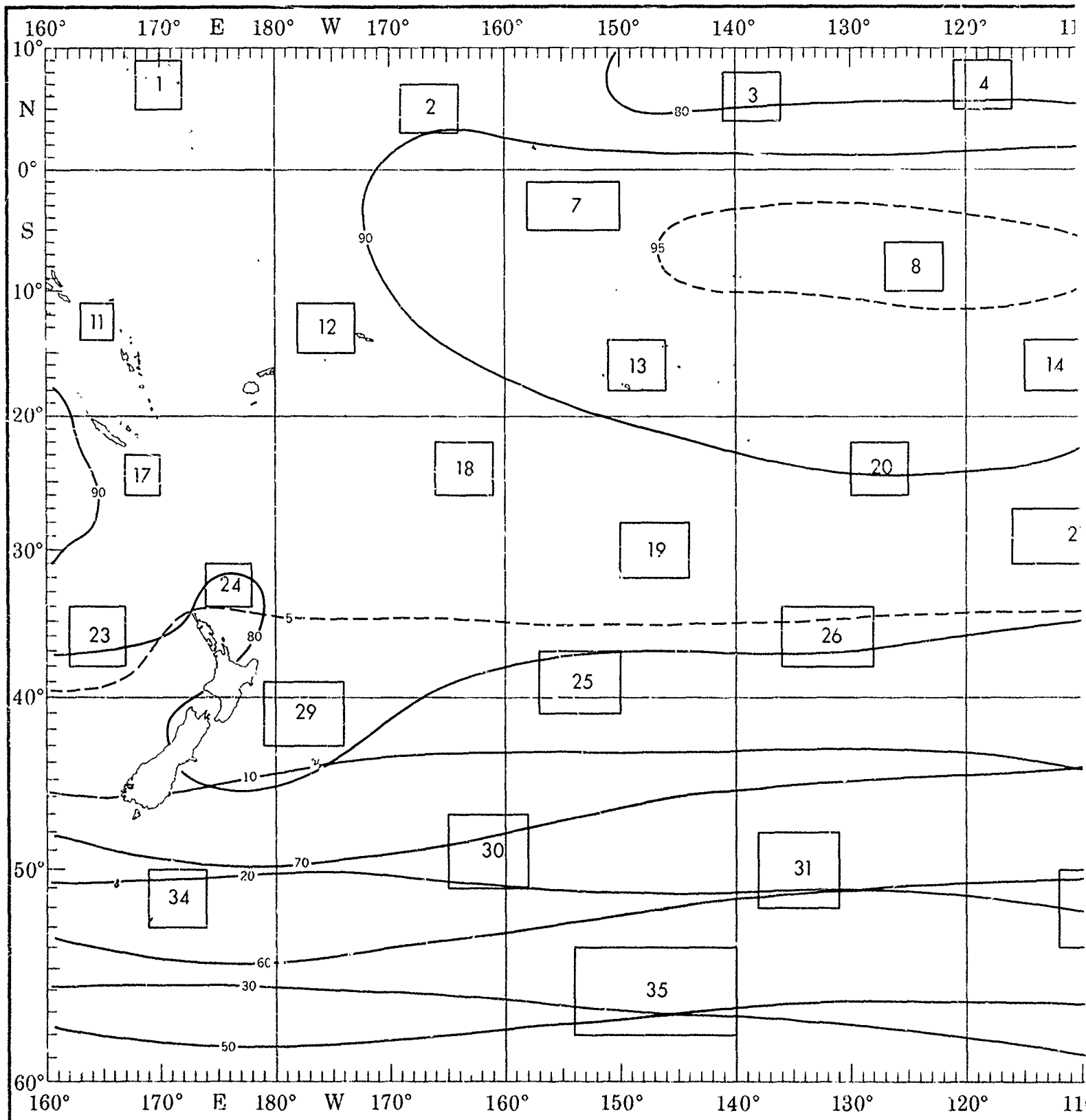
JUNE



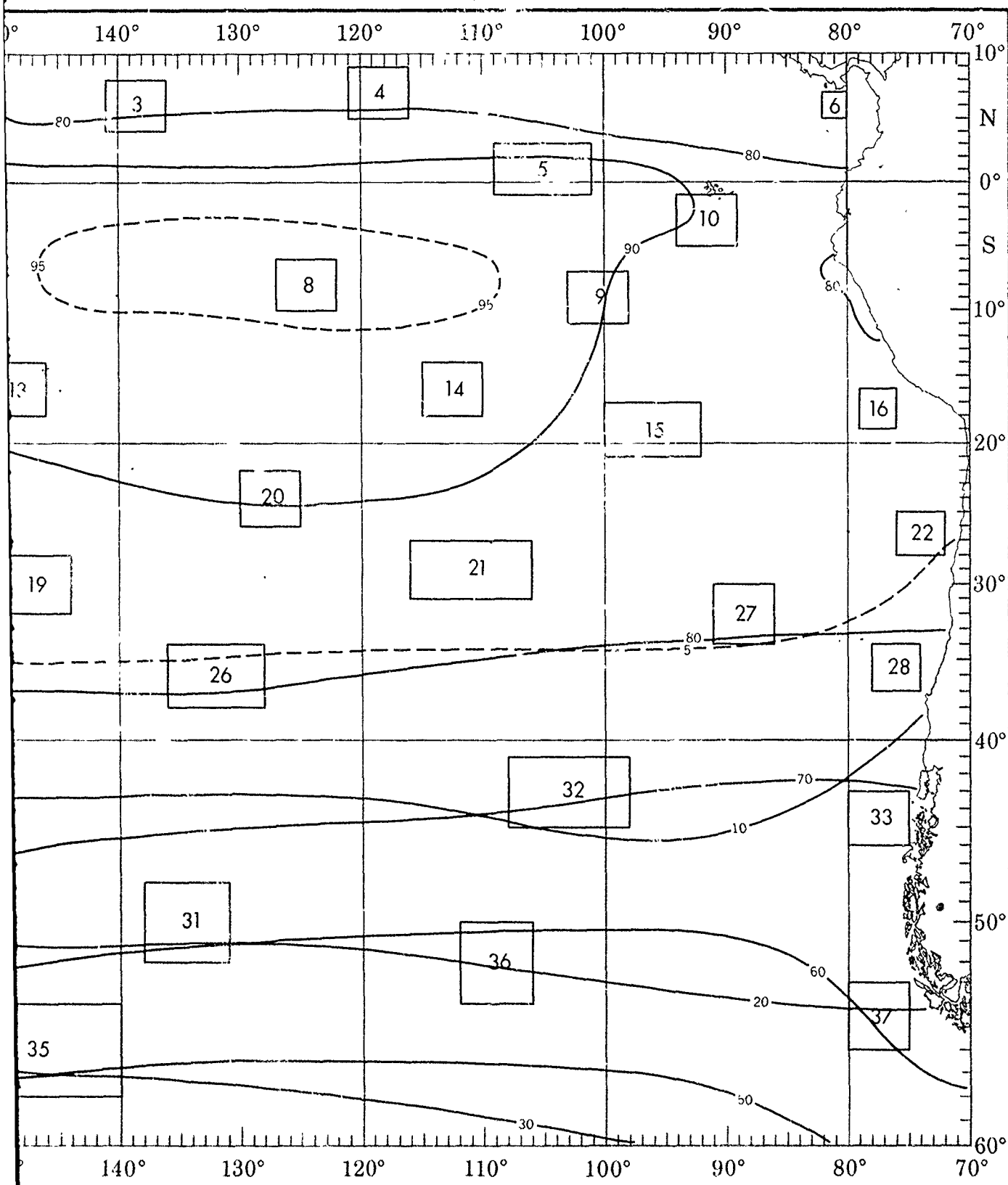
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

2

JUNE



CEILING AND VISIBILITY



↑

/

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles)

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

Obscurements are included under ceiling "0 < 15"

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

+ indicates $< 5\%$ but > 0

— Number of observations

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	3	13	64
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	4
20<35	0	0	1	1	2	2
10<20	0	0	1	1	2	1
5<10	0	1	0	0	0	0
3<5	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

334

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling < 600 feet and/or visibility < 2 nautical miles

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	5	52
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	2
10<20	0	0	0	2	4	9
5<10	0	0	0	2	6	4
3<5	0	0	2	2	1	0
1.5<3	0	1	1	0	0	0
0<1.5	0	0	1	0	0	0

62

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	10	69
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	1	2	1
10<20	0	0	0	0	1	5
5<10	0	0	1	0	2	10
3<5	0	0	0	1	0	1
1.5<3	0	0	0	0	0	1
0<1.5	0	0	0	1	0	0

168

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	8	65
50<80	0	0	0	0	0	0
35<50	0	0	0	0	1	1
20<35	0	0	0	0	3	4
10<20	0	0	0	0	3	8
5<10	0	0	0	0	1	3
3<5	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

669

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	0	74
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	2
20<35	0	0	0	0	0	6
10<20	0	0	0	0	1	9
5<10	0	0	0	0	1	5
3<5	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

700

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	4	48
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	6
10<20	0	0	0	0	1	16
5<10	0	0	0	1	6	11
3<5	0	0	0	1	0	2
1.5<3	0	0	0	0	1	0
0<1.5	0	0	0	0	0	0

159

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	0	18
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	5
20<35	0	0	0	0	1	21
10<20	0	0	0	0	4	35
5<10	0	0	0	0	0	11
3<5	0	0	0	0	0	1
1.5<3	0	0	0	0	1	1
0<1.5	0	0	0	1	0	1

151

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	2	65
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	3
20<35	0	0	0	0	1	7
10<20	0	0	0	0	1	11
5<10	0	0	0	0	1	4
3<5	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

875

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	0	54
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	3
20<35	0	0	0	0	1	20
10<20	0	0	0	0	2	13
5<10	0	0	0	0	1	3
3<5	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	1	0	0	0	1

307

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	2	46
50<80	0	0	0	0	1	0
35<50	0	0	0	0	0	4
20<35	0	0	0	0	2	9
10<20	0	0	0	0	2	21
5<10	0	0	0	1	1	11
3<5	0	0	0	0	0	1
1.5<3	0	0	0	0	0	0
0<1.5	0	1	0	0	0	0

191

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	4	46
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	5
10<20	0	0	0	1	5	19
5<10	0	0	0	1	4	9
3<5	0	0	0	1	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

986

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	4	47
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	1
20<35	0	0	0	0	1	4
10<20	0	0	0	1	6	13
5<10	0	0	1	2	7	6
3<5	0	0	0	1	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	1	0

284

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	1	7	45
50<80	0	0	0	0	0	1
35<50	0	0	0	0	0	3
20<35	0	0	0	0	1	12
10<20	0	0	1	1	1	14
5<10	0	0	0	1	3	6
3<5	0	0	0	0	1	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

258

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	4	37
50<80	0	0	0	0	0	1
35<50	0	0	0	0	1	2
20<35	0	0	0	0	2	7
10<20	0	0	0	0	4	15
5<10	0	0	0	1	5	11
3<5	0	0	0	0	1	1
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

350

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	0	35
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	5
20<35	0	0	0	0	10	0
10<20	0	0	0	0	5	30
5<10	0	0	0	0	0	5
3<5	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	5	0	0	0

20

LOW CLOUD CEILING	VISIBILITY					
	$< 1/2$	$1/2$	$3/4$	1	2	≥ 10
NC	0	0	0	0	0	36
50<80	0	0	0	0	0	0
35<50	0	0	0	0	0	9
20<35	0	0	0	0	0	0
10<20	0	0	0	0	18	27
5<10	0	0	0	0	0	9
3<5	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

11

32

INSUFFICIENT
DATA

JUNE

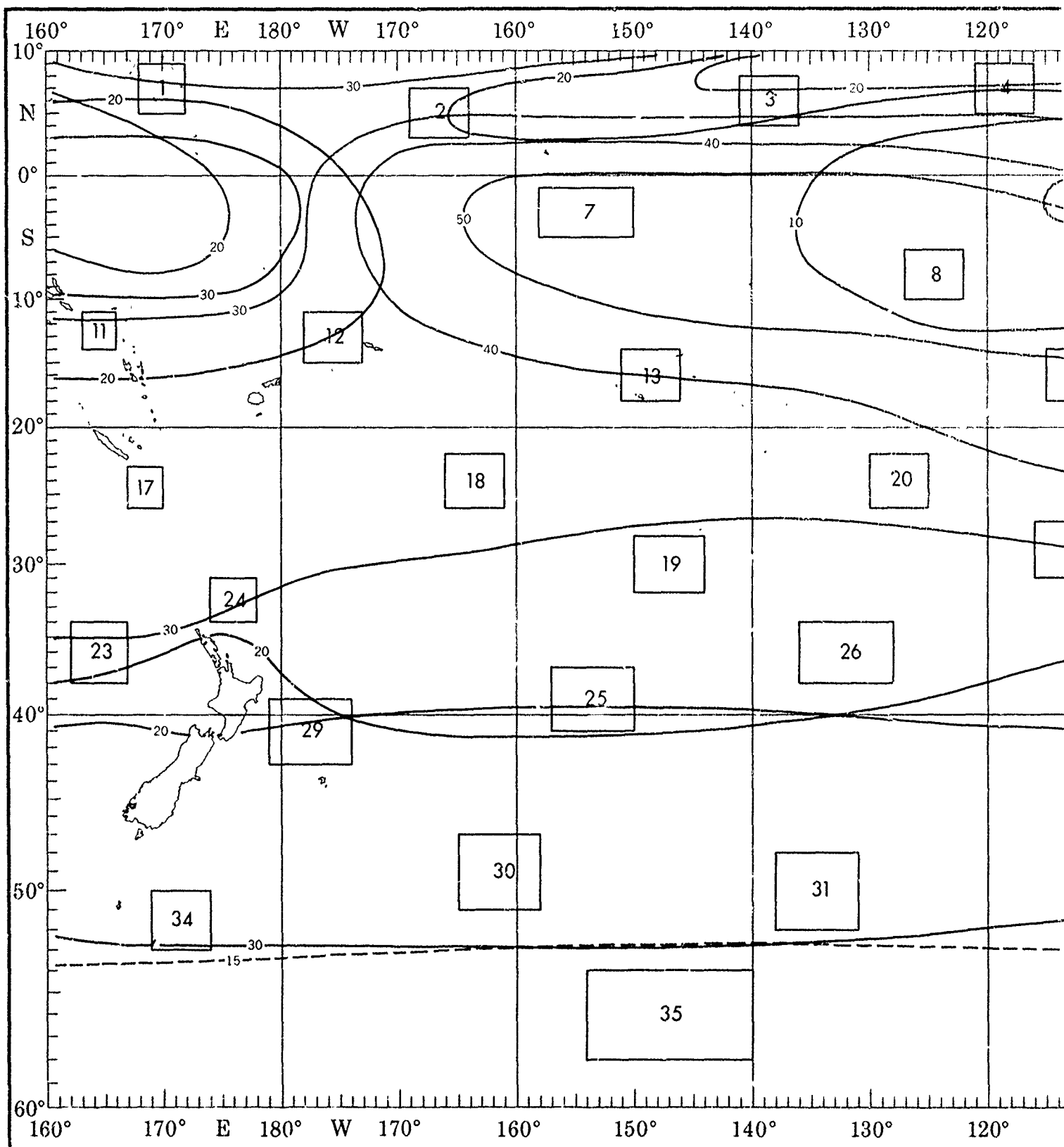
(hundreds of feet)
low cloud amount
of $N_h < 5/8$
visibility ≥ 5 but < 10

≥ 5 nautical miles

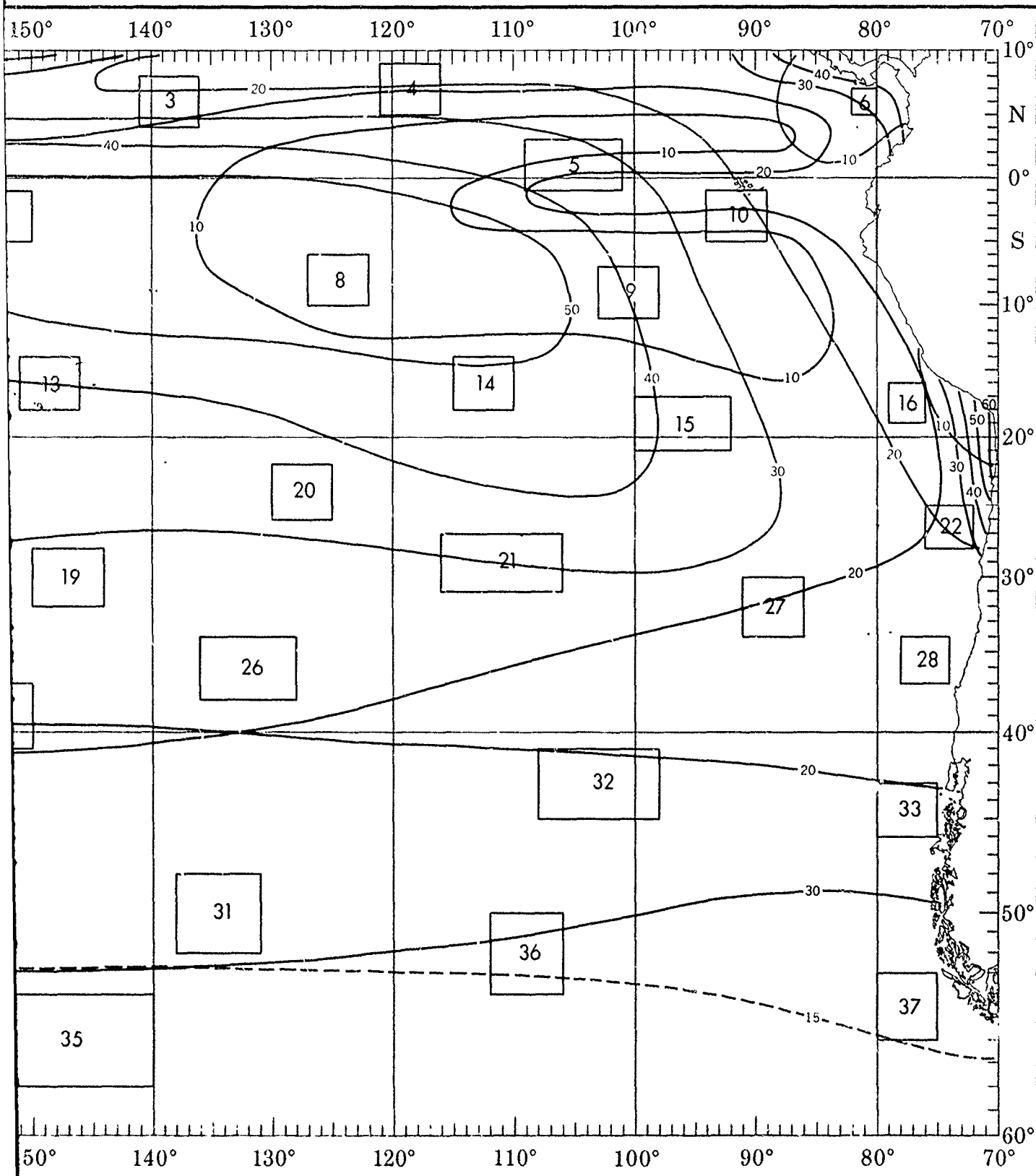
1									
VISIBILITY									
NC	0	0	1	1	3	5	2	10	10
50+80	0	0	0	1	0	0			
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	0	3	
10+20	0	0	0	1	1	1	1		
6+10	0	0	0	0	0	6	19		
3+6	0	0	0	0	0	1	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		
155									
2									
VISIBILITY									
NC	0	0	+	1	5	6	5	10	10
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	+		
20+35	0	0	0	0	0	+	+	3	
10+20	0	0	0	0	0	3	12		
6+10	0	0	+	1	1	7			
3+6	0	0	0	0	0	0	1		
1.5+3	0	0	+	+	0	0	0		
0+1.5	0	+	+	+	0	0	0		
347									
3									
VISIBILITY									
NC	0	0	+	1	4	4	4		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	+	1		
20+35	0	0	0	0	1	+	5		
10+20	0	0	0	0	2	3	15		
6+10	0	+	+	3	5	7			
3+6	+	1	1	2	+	1			
1.5+3	0	+	+	+	1	0			
0+1.5	+	0	0	+	1	0			
240									
4									
VISIBILITY									
NC	0	0	0	1	1	5	2		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	1	1	2		
20+35	0	0	0	0	1	1	2		
10+20	0	0	1	1	2	10			
6+10	0	0	1	1	5	10			
3+6	0	0	0	1	2	3			
1.5+3	0	0	0	0	1	0			
0+1.5	1	0	0	0	1	1			
165									
5									
VISIBILITY									
NC	0	0	0	+	2	7	5		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	0	1		
10+20	0	0	0	0	0	+	8		
6+10	0	0	0	+	1	6			
3+6	0	0	0	0	0	1	+		
1.5+3	0	0	0	0	0	+	+		
0+1.5	0	0	0	0	0	+	0		
533									
6									
VISIBILITY									
NC	+	0	0	+	3	3	9		
50+80	0	0	0	0	+	+			
35+50	0	0	0	+	+	2			
20+35	0	0	0	0	1	7			
10+20	0	+	+	1	5	18			
6+10	+	1	1	7	11				
3+6	0	+	+	+	3				
1.5+3	0	0	0	+	0	+			
0+1.5	+	0	0	0	0	+			
747									
7									
VISIBILITY									
NC	0	0	0	0	7	7	8		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	2		
10+20	0	0	0	0	0	0	6		
6+10	0	0	0	0	0	1	3		
3+6	0	0	0	0	0	1	1		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	1	0		
156									
8									
VISIBILITY									
NC	0	0	0	0	1	8			
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	+	1		
20+35	0	0	0	0	0	+	1		
10+20	0	0	0	0	+	+	6		
6+10	0	0	0	0	0	+	2		
3+6	0	0	0	0	+	0			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	+	0	0		
582									
9									
VISIBILITY									
NC	0	0	0	0	2	5	2		
50+80	0	0	0	0	0	0	+		
35+50	0	0	0	0	+	3			
20+35	0	0	0	0	0	1	9		
10+20	0	0	0	0	1	21			
6+10	0	0	0	+	1	9			
3+6	0	0	0	0	+	1			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		
887									
10									
VISIBILITY									
NC	0	0	0	0	1	5	5		
50+80	0	0	0	0	0	+	1		
35+50	0	0	0	0	0	+	4		
20+35	0	0	0	0	0	+	9		
10+20	0	0	0	0	+	2	18		
6+10	0	0	0	0	0	1	6		
3+6	0	0	0	0	+	+	1		
1.5+3	0	0	0	0	0	0	+		
0+1.5	0	0	0	0	0	+	0		
1114									
14									
VISIBILITY									
NC	0	0	0	+	4	4	6		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	6		
10+20	0	0	0	0	0	1	16		
6+10	0	0	0	1	6	11			
3+6	0	0	0	1	0	2			
1.5+3	0	0	0	0	1	0			
0+1.5	0	0	0	0	0	0	0		
159									
15									
VISIBILITY									
NC	0	0	0	1	0	1	5		
50+80	0	0	0	0	0	1	0		
35+50	0	0	0	0	0	0	5		
20+35	0	0	0	0	0	1	21		
10+20	0	0	0	0	0	4	3		
6+10	0	0	0	0	0	0	11		
3+6	0	0	0	0	0	0	1		
1.5+3	0	0	0	0	0	1	1		
0+1.5	0	0	0	0	1	0	1		
151									
16									
VISIBILITY									
NC	0	0	0	0	3	5	9		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	+	+	1			
20+35	0	0	0	+	+	5			
10+20	0	0	0	+	2	13			
6+10	0	0	+	1	3	6			
3+6	0	+	1	1	+	1			
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	+		
280									
17									
VISIBILITY									
NC	0	0	0	+	1	5	8		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	2	7		
10+20	0	0	0	1	4	16			
6+10	0	0	0	0	0	2	6		
3+6	0	0	0	+	+	1			
1.5+3	0	0	+	+	0	0	0		
0+1.5	0	0	0	+	0	1			
380									
18									
VISIBILITY									
NC	0	0	0	0	2	5	2		
50+80	0	0	0	0	0	0	+		
35+50	0	0	0	0	0	+	2		
20+35	0	0	0	0	0	1	7		
10+20	+	0	0	1	3	17			
6+10	0	0	+	1	5	7			
3+6	0	0	+	+	+	+			
1.5+3	0	0	0	0	0	+	+		
0+1.5	0	0	0	0	+	+	0		
718									
19									
VISIBILITY									
NC	0	0	0	+	4	4	6		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	6		
10+20	0	0	0	0	0	1	16		
6+10	0	0	1	2	7	6			
3+6	0	+	+	1	1	1			
1.5+3	0	0	+	0	0	+			
0+1.5	0	0	+	0	1	0			
986									
23									
VISIBILITY									
NC	0	0	0	0	1	7	4		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	3		
20+35	0	0	0	0	+	1	12		
10+20	0	0	0	1	1	14			
6+10	0	+	0	1	3	6			
3+6	0	0	0	0	0	1	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		
258									
24									
VISIBILITY									
NC	0	0	0	0	1	4	4		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	1		
20+35	0	0	0	0	0	1	4		
10+20	0	0	0	1	6	13			
6+10	0	0	1	2	7	6			
3+6	0	+	+	1	1	1			
1.5+3	0	0	+	0	0	+			
0+1.5	0	0	+	0	1	0			
284									
25									
VISIBILITY									
NC	0	+	0	1	7	4	5		
50+80	0	0	0	0	0	0	1		
35+50	0	0	0	0	0	0	3		
20+35	0	0	0	0	+	1	12		
10+20	0	0	0	1	1	14			
6+10	0	+	0	1	3	6			
3+6	0	0	0	0	0	1	0		
1.5+3	0	0	0	0	0	0	0		
0+1.5	0	0	0	0	0	0	0		
268									
26									
VISIBILITY									
NC	0	0	0	1	1	4	9		
50+80	0	0	0	0	0	0	0		
35+50	0	0	0	0	0	1	3		
20+35	0	0	0	0	0	2	6		
10+20	1</								

JUNE

WIN



WIND-VISIBILITY-CLOUDINESS



1

1

2

LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (VsbY) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (knots)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	1	1	0	0	0
<.5 & OR <2	2	2	1	1	0
VsbY <2	1	2	1	1	0
<10 & OR <2	3	4	2	1	1
<20 & OR <5	8	9	6	5	2
VsbY ≥5	9	11	12	3	1
≥50 & ≥5	12	13	15	7	3
NC & ≥10	4	2	1	1	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is ≥5/8

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles)

"N C" (no ceiling) includes bases of clouds ≥8000 feet as well as occurrences of N_h <5/8

+ indicates <5% but >0

1234 ← Number of observations

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions LCC ≥5000 ft, (or no LCC), VsbY ≥5 nm and Wind 11-21 kts

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions LCC <300 ft, VsbY <1 nm, Wind <6 or ≥34 kts

Satisfactory conditions between poor and optimum

11

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	1	0	0	0
<.5 & OR <2	0	5	0	0	0
VsbY <2	0	4	3	0	0
<10 & OR <2	0	9	14	0	0
<20 & OR <5	1	11	25	1	0
VsbY ≥5	6	20	55	4	0
≥50 & ≥5	5	18	33	3	0
NC & ≥10	4	16	30	3	0

80

12

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	1	0	0	0
<.5 & OR <2	0	1	2	0	0
VsbY <2	0	0	1	0	0
<10 & OR <2	0	2	10	2	0
<20 & OR <5	0	5	14	4	0
VsbY ≥5	3	32	51	11	0
≥50 & ≥5	3	26	37	7	0
NC & ≥10	3	23	33	5	0

167

13

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	0	1	3	1	0
<20 & OR <5	1	5	10	2	0
VsbY ≥5	6	38	46	8	0
≥50 & ≥5	6	31	33	5	0
NC & ≥10	6	29	27	4	0

656

14

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	0	1	5	1	0
<20 & OR <5	0	4	10	2	0
VsbY ≥5	4	32	57	7	0
≥50 & ≥5	3	25	42	5	0
NC & ≥10	3	25	41	5	0

699

15

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	2	1
VsbY <2	0	0	0	0	0
<10 & OR <2	3	3	12	5	0
<20 & OR <5	6	6	20	9	0
VsbY ≥5	8	30	43	16	0
≥50 & ≥5	2	24	20	6	0
NC & ≥10	2	23	18	5	0

159

16

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	1	1	0	0
<.5 & OR <2	0	1	2	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	1	7	7	1	0
<20 & OR <5	2	20	32	3	0
VsbY ≥5	5	33	66	3	0
≥50 & ≥5	2	5	8	0	0
NC & ≥10	1	5	8	0	0

15

20

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	0	2	4	1	0
<20 & OR <5	0	6	11	3	0
VsbY ≥5	3	38	45	13	0
≥50 & ≥5	2	30	29	7	0
NC & ≥10	2	29	27	7	0

855

21

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	1	0
<.5 & OR <2	0	0	0	1	0
VsbY <2	0	0	0	1	0
<10 & OR <2	0	1	0	3	1
<20 & OR <5	0	8	9	3	1
VsbY ≥5	3	45	40	9	1
≥50 & ≥5	2	23	24	6	0
NC & ≥10	2	23	23	6	0

306

22

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	1	1	0	0	0
<.5 & OR <2	1	1	1	0	0
VsbY <2	1	1	0	0	0
<10 & OR <2	3	8	4	0	0
<20 & OR <5	6	22	10	1	0
VsbY ≥5	14	45	33	5	1
≥50 & ≥5	7	17	17	5	1
NC & ≥10	7	17	16	5	1

190

23

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	0	2	8	5	2
<20 & OR <5	1	7	20	10	4
VsbY ≥5	3	26	47	17	4
≥50 & ≥5	2	17	24	8	1
NC & ≥10	2	16	22	6	1

978

24

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	1	0
<.5 & OR <2	1	1	2	2	1
VsbY <2	0	0	0	0	0
<10 & OR <2	1	4	8	6	3
<20 & OR <5	1	9	20	9	4
VsbY ≥5	4	25	43	17	4
≥50 & ≥5	4	15	23	9	1
NC & ≥10	3	14	21	8	1

279

25

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	2	1	0
VsbY <2	0	0	0	2	0
<10 & OR <2	0	1	6	5	0
<20 & OR <5	1	3	14	10	0
VsbY ≥5	1	20	48	22	0
≥50 & ≥5	0	14	25	2	0
NC & ≥10	0	14	22	8	0

25

29

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	1	1	1
VsbY <2	0	0	0	0	1
<10 & OR <2	0	3	7	6	5
<20 & OR <5	0	6	16	11	6
VsbY ≥5	1	21	41	26	9
≥50 & ≥5	1	12	20	9	2
NC & ≥10	0	11	18	7	1

348

30

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	5	0	0	0
<.5 & OR <2	0	5	0	0	0
VsbY <2	0	5	0	0	0
<10 & OR <2	0	5	0	5	0
<20 & OR <5	0	5	30	10	0
VsbY ≥5	0	5	70	20	0
≥50 & ≥5	0	0	25	10	0
NC & ≥10	0	0	25	10	0

20

31

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	0	0	0	0
<.5 & OR <2	0	0	0	0	0
VsbY <2	0	0	0	0	0
<10 & OR <2	0	9	0	0	0
<20 & OR <5	0	9	0	36	9
VsbY ≥5	0	9	45	35	9
≥50 & ≥5	0	0	36	0	0
NC & ≥10	0	0	36	0	0

11

32

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	2	0	2	0
<.5 & OR <2	0	2	0	2	0
VsbY <2	0	0	0	2	0
<10 & OR <2	0	5	7	16	2
<20 & OR <5	0	11	29	20	2
VsbY ≥5	0	25	46	14	0
≥50 & ≥5	0	13	18	0	0
NC & ≥10	0	11	16	0	0

56

33

WIND SPEED (KNOTS)

LCC - VsbY	0-3	4-10	11-22	23-34	35+
<1.5 & OR <.5	0	2	0	2	0
<.5 & OR <2	0	2	0	2	0
VsbY <2	0	0	0	2	0
<10 & OR <2	0	5	7	16	2
<20 & OR <5	0	11	29	20	2
VsbY ≥5	0	25	46	14	0
≥50 & ≥5	0	13	18	0	0
NC & ≥10	0	11	16	0	0

56

34

WIND SPEED (KNOTS)

**INSUFFICIENT
DATA**

VISIBILITY-WIND

JUNE

Visibility (Vsby) in nautical

(h) when low cloud amount

ceiling <1000 feet and/or

currents of $N_h < 5/8$

and Wind 11-21 kts

conditions LCC <300 ft

B

34

0

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1

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	2	0	0	0
VSBY < 2	0	1	0	0	0
<10 & OR < 2	3	15	10	0	0
<20 & OR < 5	3	21	18	0	0
VSBY ≥ 5	8	42	46	1	0
≥50 & ≥ 5	5	21	28	1	0
NC & ≥ 10	5	21	26	0	0

155

2

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	1	0	0
VSBY < 2	0	1	0	0	0
<10 & OR < 2	1	3	6	1	0
<20 & OR < 5	1	9	14	2	0
VSBY ≥ 5	6	43	46	2	0
≥50 & ≥ 5	4	34	32	0	0
NC & ≥ 10	4	31	30	0	0

344

3

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	1	1	0	0
<6 & OR < 2	1	5	3	0	0
VSBY < 2	0	3	0	0	0
<10 & OR < 2	2	14	8	0	0
<20 & OR < 5	3	24	18	0	0
VSBY ≥ 5	10	43	34	0	0
≥50 & ≥ 5	6	25	16	0	0
NC & ≥ 10	5	24	15	0	0

237

4

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	1	0	1	0	0
<6 & OR < 2	1	4	6	0	0
VSBY < 2	1	1	1	0	0
<10 & OR < 2	1	14	12	0	0
<20 & OR < 5	2	20	18	1	0
VSBY ≥ 5	6	45	43	0	0
≥50 & ≥ 5	4	25	23	0	0
NC & ≥ 10	4	24	23	0	0

162

5

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	0	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	4	4	0	0
<20 & OR < 5	1	10	6	0	0
VSBY ≥ 5	6	66	27	0	0
≥50 & ≥ 5	5	53	20	0	0
NC & ≥ 10	4	52	19	0	0

531

6

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	1	0	0
<6 & OR < 2	0	3	2	0	0
VSBY < 2	0	1	1	0	0
<10 & OR < 2	2	14	8	0	0
<20 & OR < 5	5	24	17	0	0
VSBY ≥ 5	15	57	23	1	0
≥50 & ≥ 5	9	28	5	0	0
NC & ≥ 10	9	26	4	0	0

733

7

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	1	0	0
<6 & OR < 2	0	1	2	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	1	3	3	0	0
<20 & OR < 5	1	6	6	0	0
VSBY ≥ 5	3	42	54	1	0
≥50 & ≥ 5	2	34	47	1	0
NC & ≥ 10	2	29	44	1	0

156

8

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	0	0	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	0	2	0	0
<20 & OR < 5	0	2	6	0	0
VSBY ≥ 5	1	34	61	4	0
≥50 & ≥ 5	1	29	54	4	0
NC & ≥ 10	1	29	54	4	0

562

9

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	0	1	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	3	7	2	0
<20 & OR < 5	0	7	23	4	0
VSBY ≥ 5	1	24	67	8	0
≥50 & ≥ 5	0	15	35	3	0
NC & ≥ 10	0	15	34	3	0

682

10

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	1	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	5	3	0	0
<20 & OR < 5	1	18	9	0	0
VSBY ≥ 5	4	65	30	0	0
≥50 & ≥ 5	3	38	17	0	0
NC & ≥ 10	3	36	16	0	0

1109

14

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	0	1	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	1	5	1	0
<20 & OR < 5	0	4	10	2	0
VSBY ≥ 5	4	32	57	7	0
≥50 & ≥ 5	3	25	42	5	0
NC & ≥ 10	3	25	41	5	0

699

15

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	2	1	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	3	3	12	5	0
<20 & OR < 5	6	6	26	9	0
VSBY ≥ 5	8	30	43	16	0
≥50 & ≥ 5	2	24	20	6	0
NC & ≥ 10	2	23	18	5	0

159

16

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	1	1	0	0
<6 & OR < 2	0	1	2	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	1	7	7	1	0
<20 & OR < 5	2	20	32	3	1
VSBY ≥ 5	5	33	56	3	1
≥50 & ≥ 5	2	5	8	0	0
NC & ≥ 10	1	5	8	0	0

151

17

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	2	0	1
VSBY < 2	0	0	0	0	1
<10 & OR < 2	0	4	7	2	1
<20 & OR < 5	1	10	14	3	1
VSBY ≥ 5	4	41	42	8	1
≥50 & ≥ 5	3	28	28	3	1
NC & ≥ 10	3	27	25	3	1

276

18

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	1	1	0	0
<6 & OR < 2	0	1	1	0	0
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	3	5	1	1
<20 & OR < 5	1	9	18	4	1
VSBY ≥ 5	5	38	45	9	1
≥50 & ≥ 5	3	25	27	4	0
NC & ≥ 10	3	25	28	4	0

376

19

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	1	0	1
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	3	7	5	1
<20 & OR < 5	1	9	15	9	2
VSBY ≥ 5	2	33	44	15	3
≥50 & ≥ 5	2	20	25	6	1
NC & ≥ 10	2	20	24	5	1

709

23

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	0	1	0	1
VSBY < 2	0	0	0	0	0
<10 & OR < 2	0	2	8	5	2
<20 & OR < 5	1	7	20	10	4
VSBY ≥ 5	3	26	47	17	4
≥50 & ≥ 5	2	17	24	8	1
NC & ≥ 10	2	16	22	6	1

976

24

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR < 5	0	0	0	0	0
<6 & OR < 2	0	1	2	2	1
VSBY < 2	0	0	0	0	0
<10 & OR < 2	1	4	8	6	3
<20 & OR < 5	1	9	20	9	4
VSBY ≥ 5	4	25	43	17	4
≥50 & ≥ 5	4	15	23	9	1
NC & ≥ 10	3	14	21	8	1

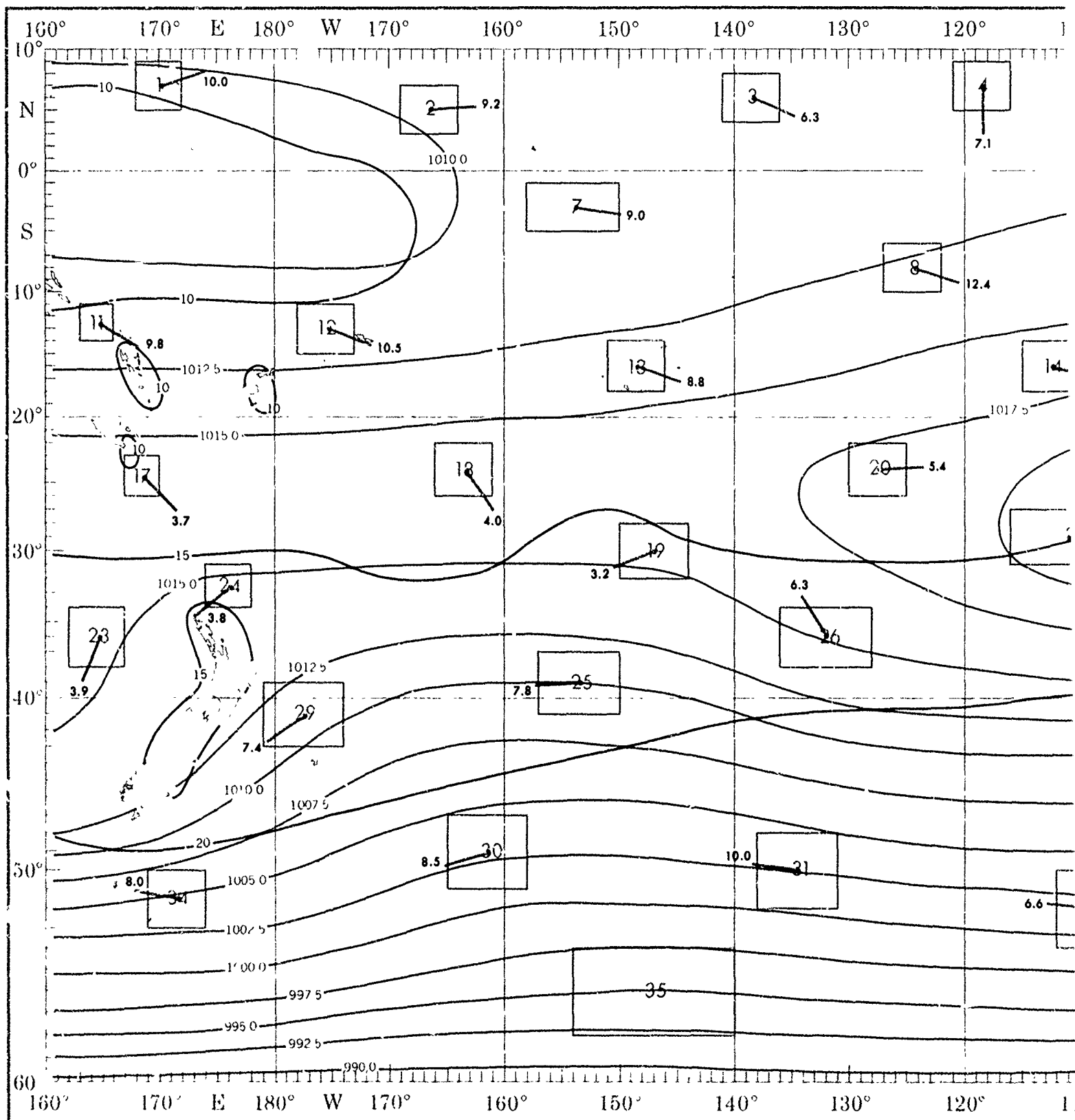
279

25

WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-21	22-33	≥34
<1.5 & OR <.5	0	0	0	0	0
<6 & OR <2	+	0	2	1	+
VSBY <2	0	0	2	+	0
<10 & OR <2	+	0	6	5	+
<20 & OR <5	1	3	14	10	2
VSBY ≥5	1	20	48	22	3
≥50 & ≥5	+	14	25	12	1
NC ≥2 & 10	+	14	22	8	1

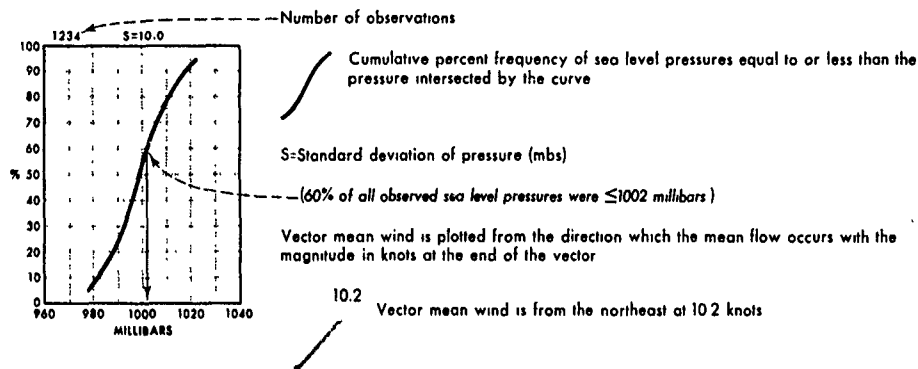
JUNE

SEA LEVEL PRES.



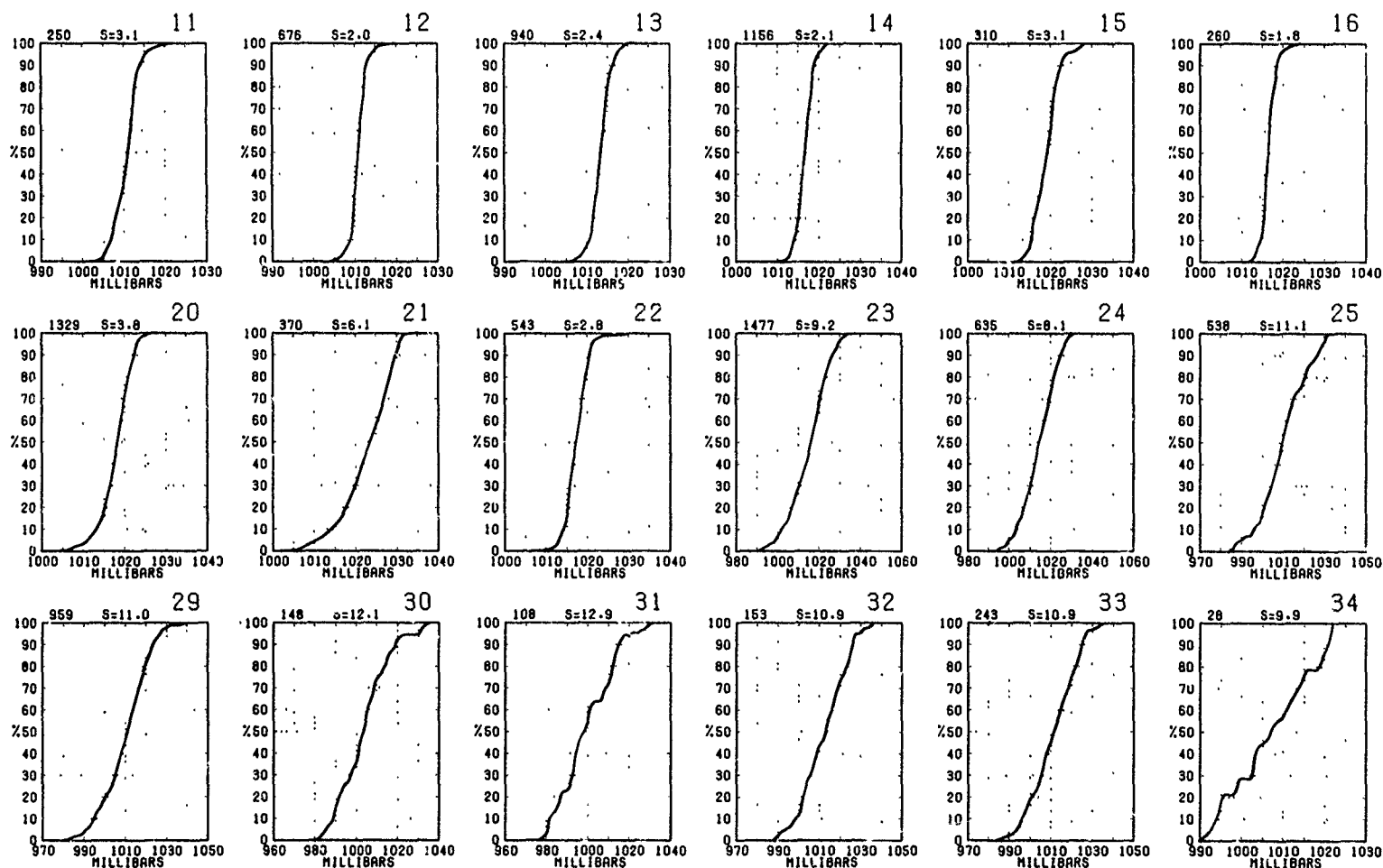
SEA LEVEL PRESSURE

Sea level pressure and mean wind



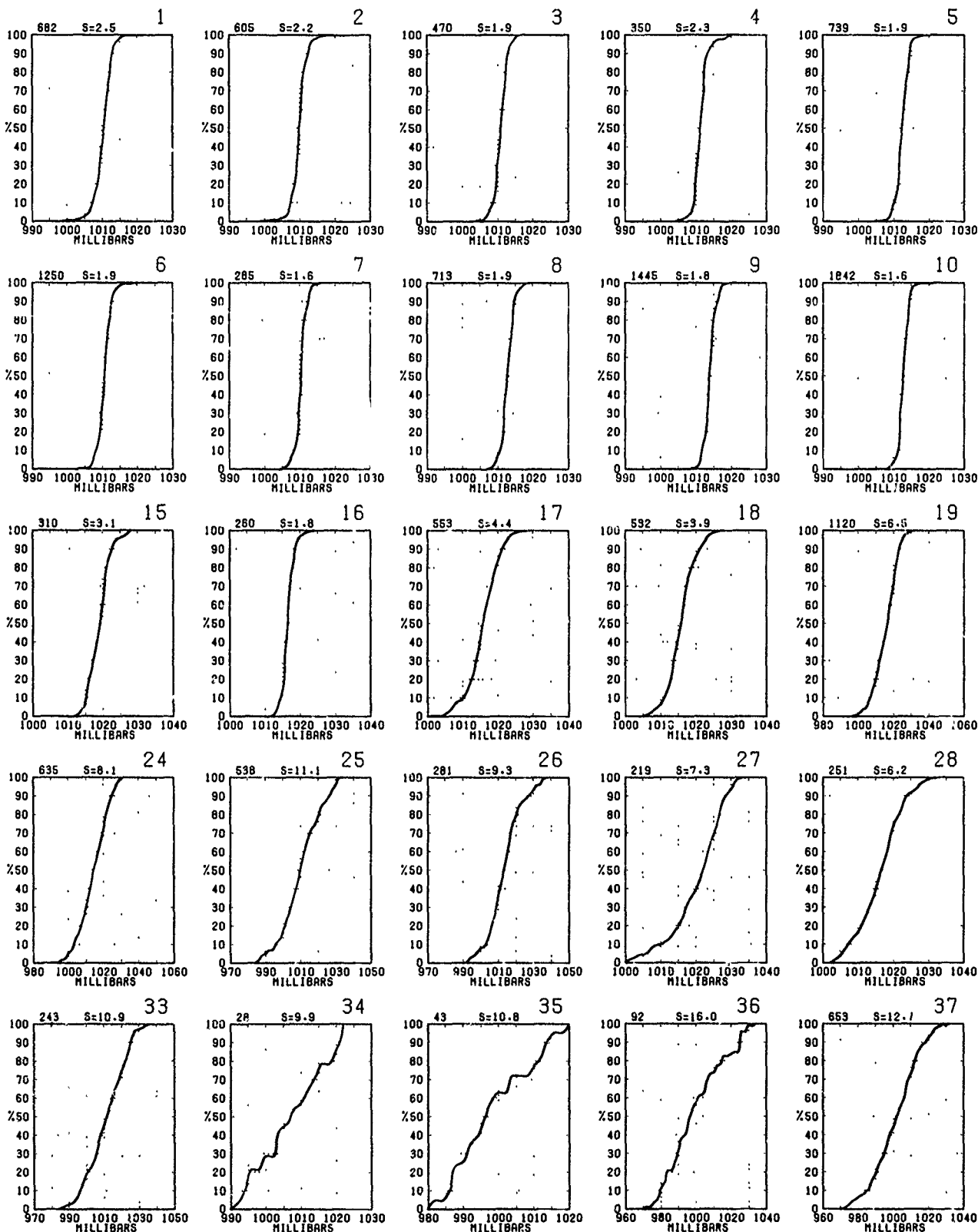
BLUE LINE - Scalar mean wind speed (kts)

RED LINE - Mean sea level pressure (mbs)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

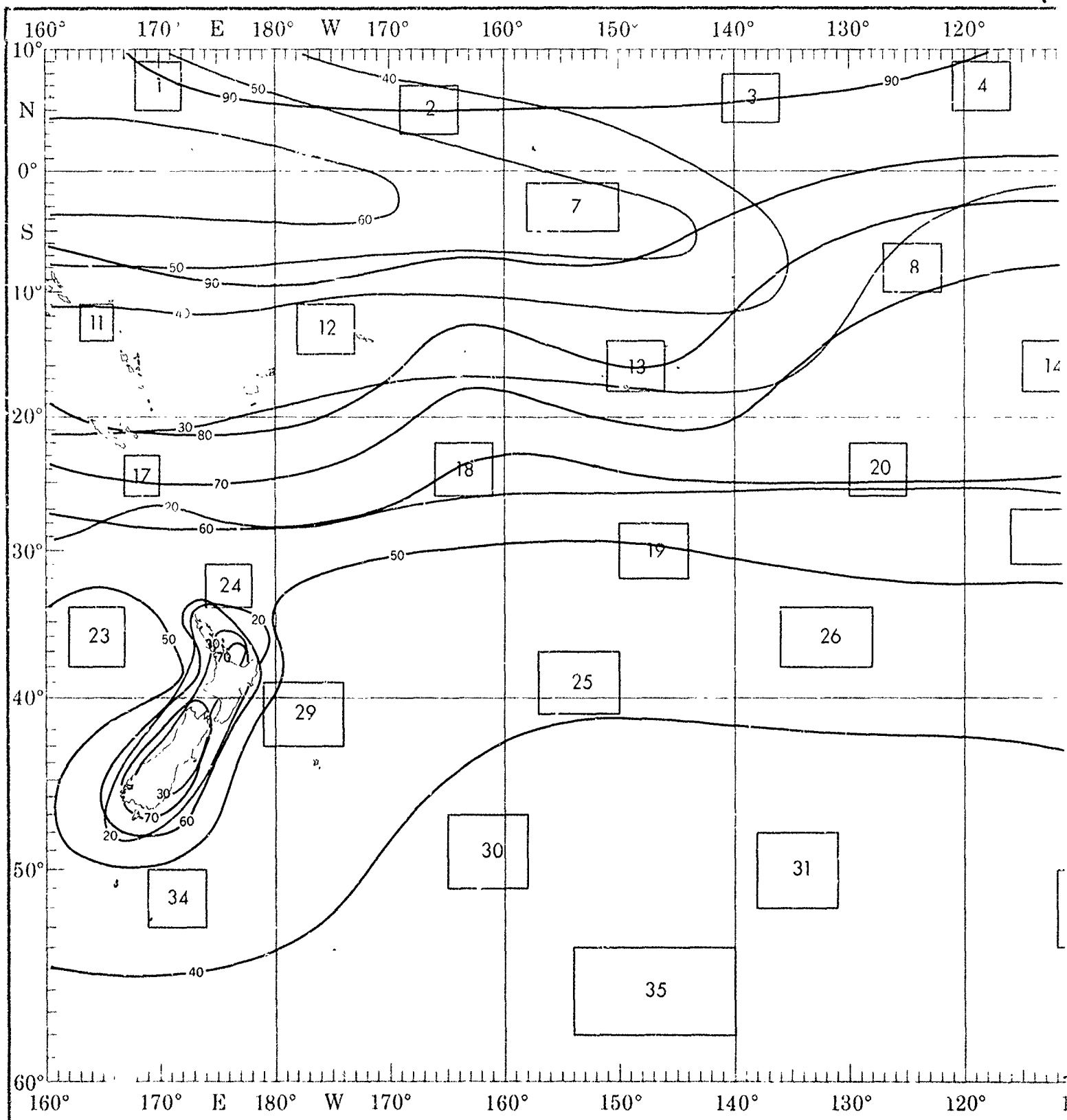
JUNE



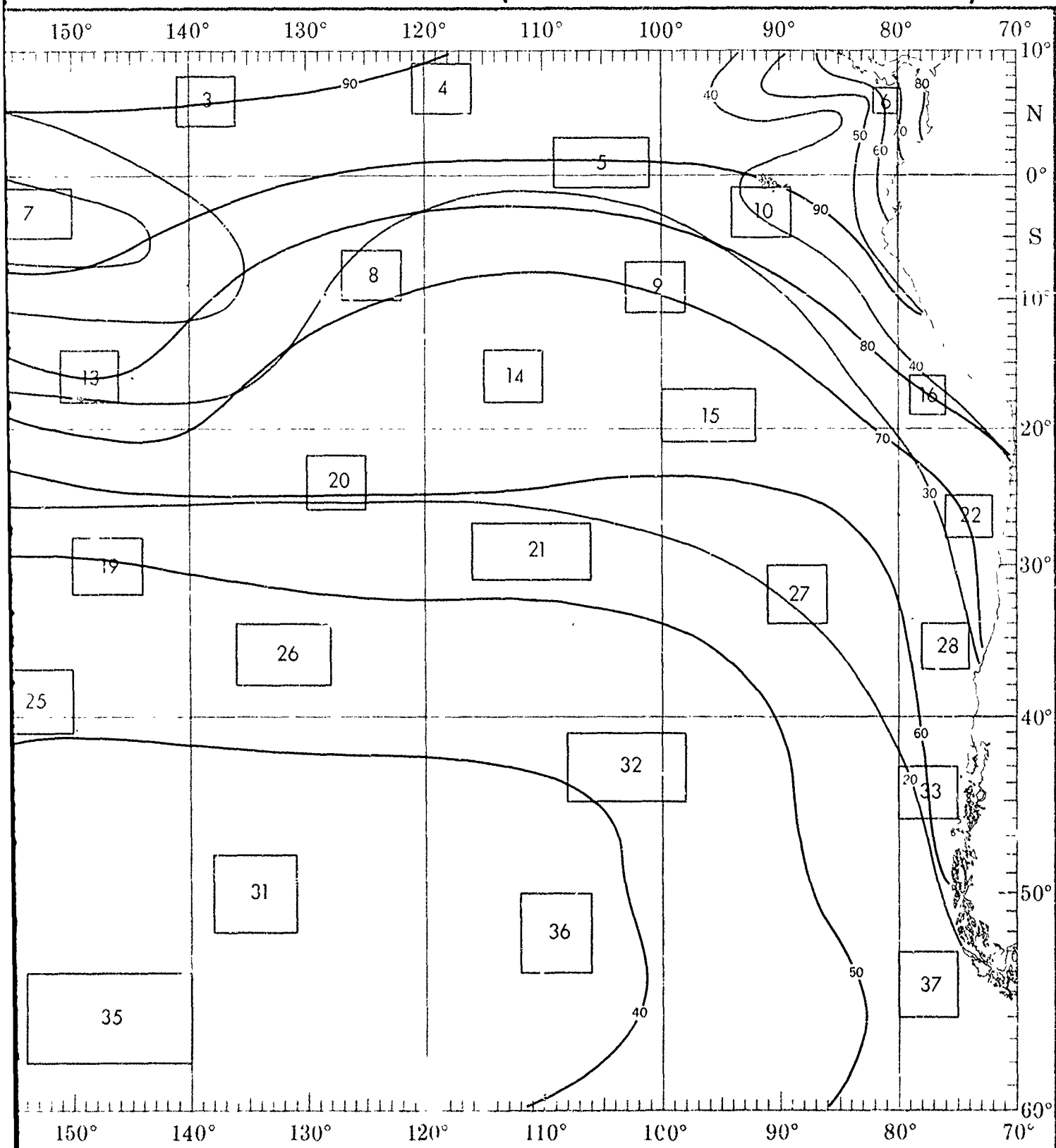
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

JUNE

WAVES (1)



WAVES (<1.5 AND <2.5 METERS)



1

1

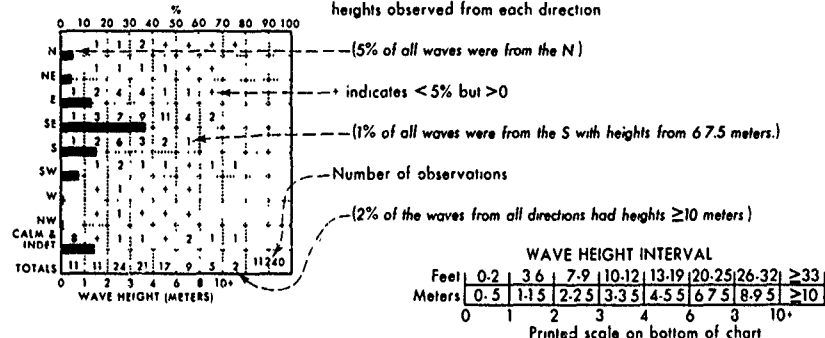
2

WAVE DIRECTION AND HEIGHT

Wave direction and height

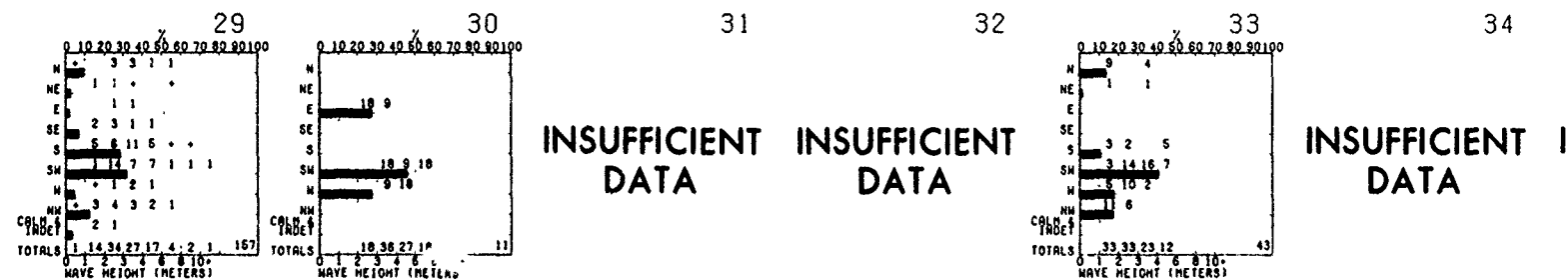
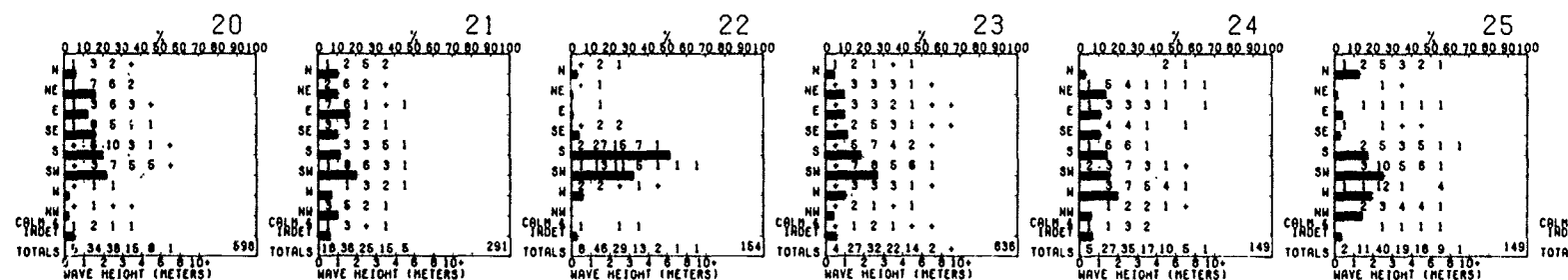
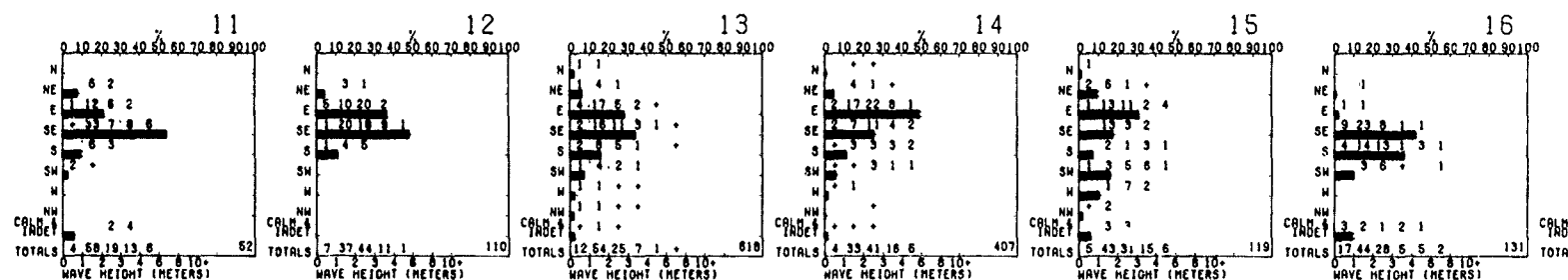
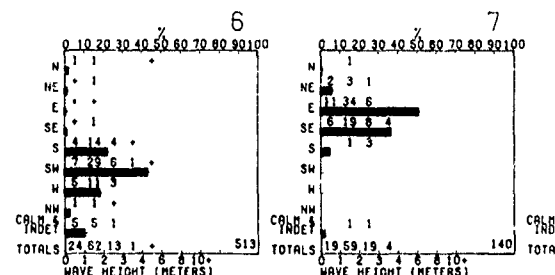
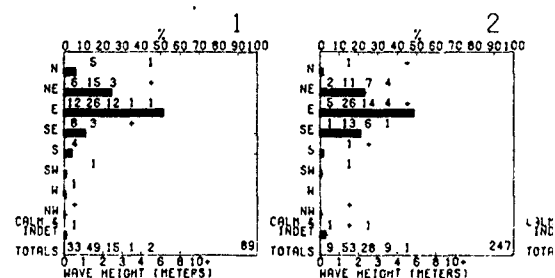
Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE - Percent frequency of wave height < 1.5 meters (5 feet)

RED LINE - Percent frequency of wave height < 2.5 meters (8 feet)



INSUFFICIENT DATA

INSUFFICIENT DATA

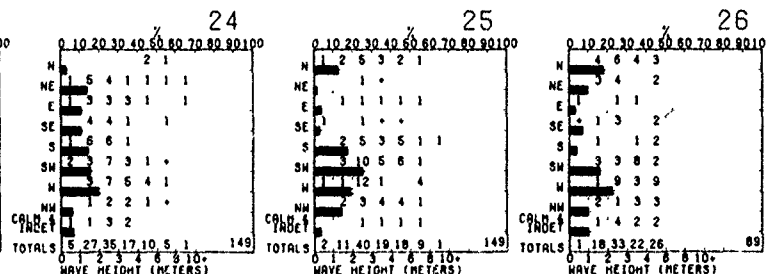
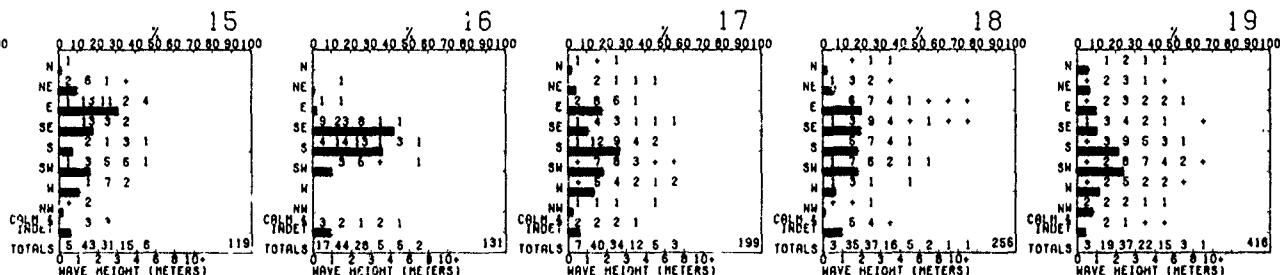
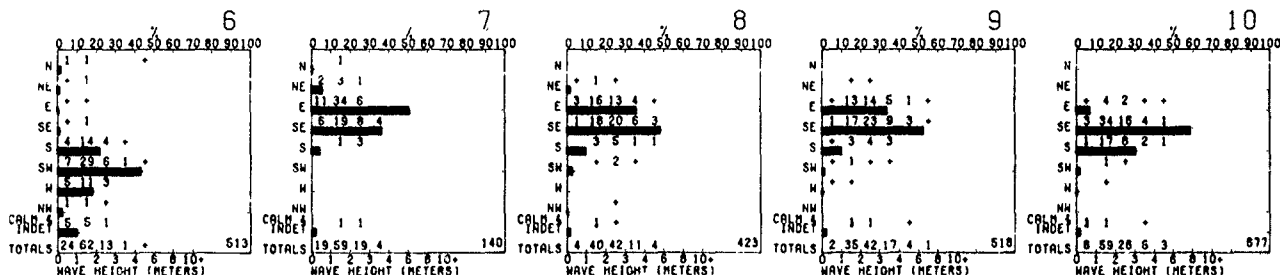
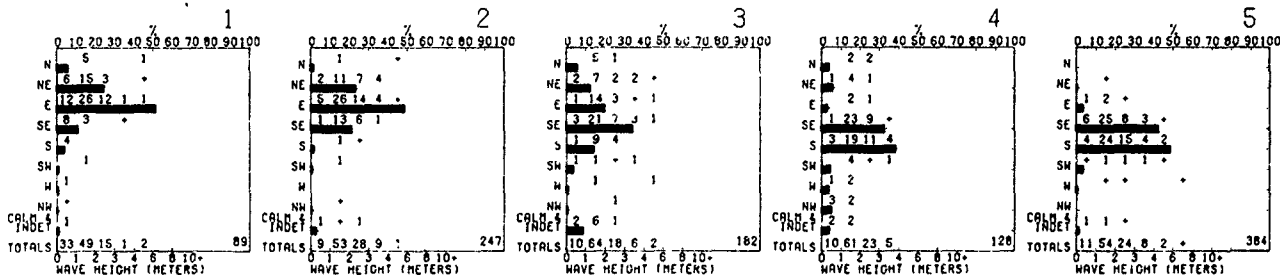
INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

HEIGHT

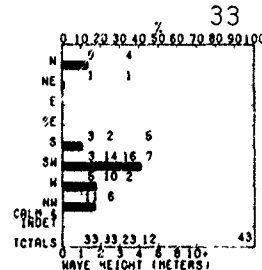
JUNE

frequency of waves from
percent frequency of wave



27 INSUFFICIENT DATA
28 INSUFFICIENT DATA

32 INSUFFICIENT DATA
33 INSUFFICIENT DATA
34 INSUFFICIENT DATA
35 INSUFFICIENT DATA
36 INSUFFICIENT DATA
37 INSUFFICIENT DATA

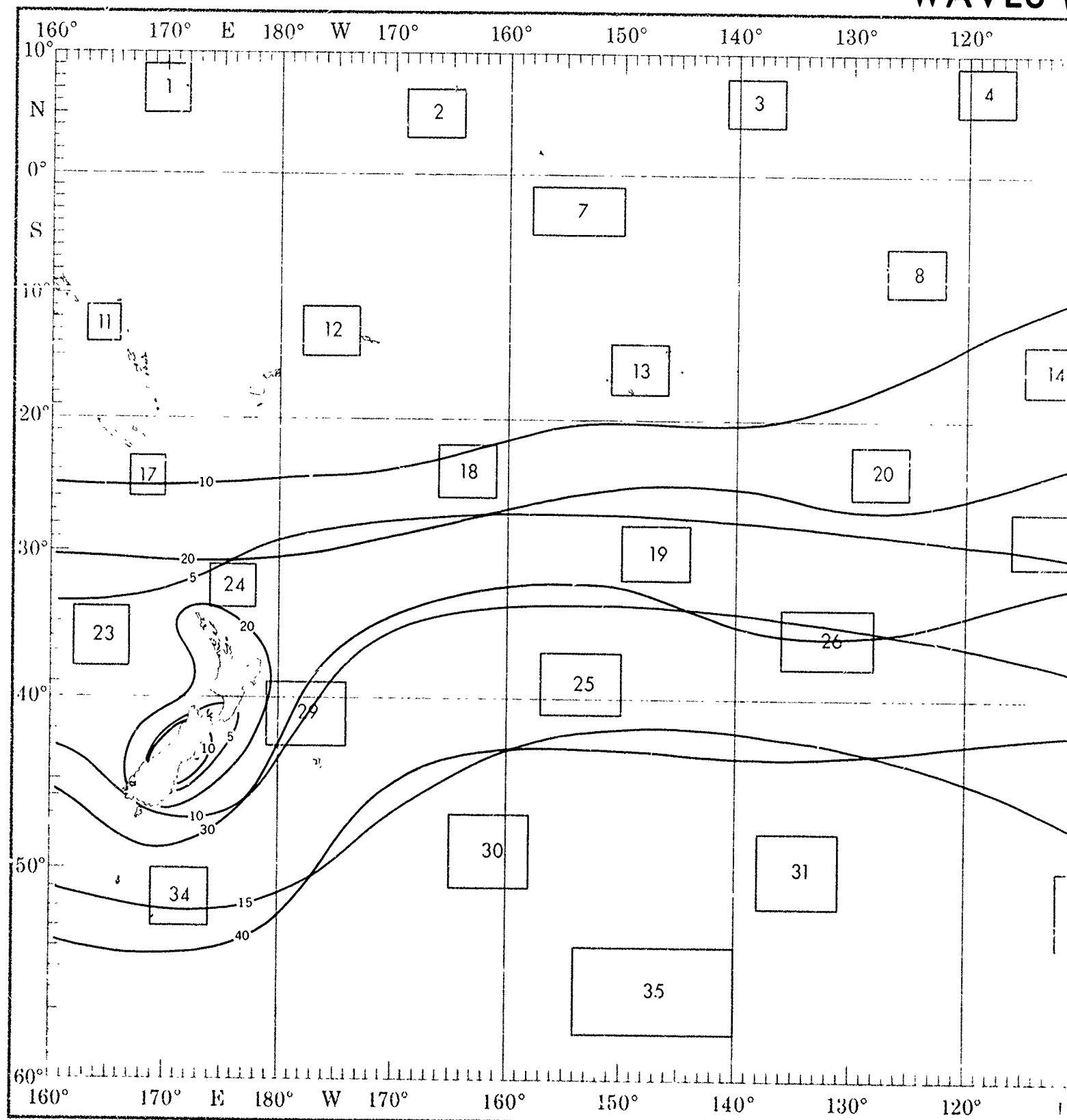


Objective compilation of available data for specified areas without regard to suspected biases.
Subjective compilation of available data for specified areas without regard to suspected biases.
Subjective compilation of available data for specified areas without regard to suspected biases.
Subjective compilation of available data for specified areas without regard to suspected biases.

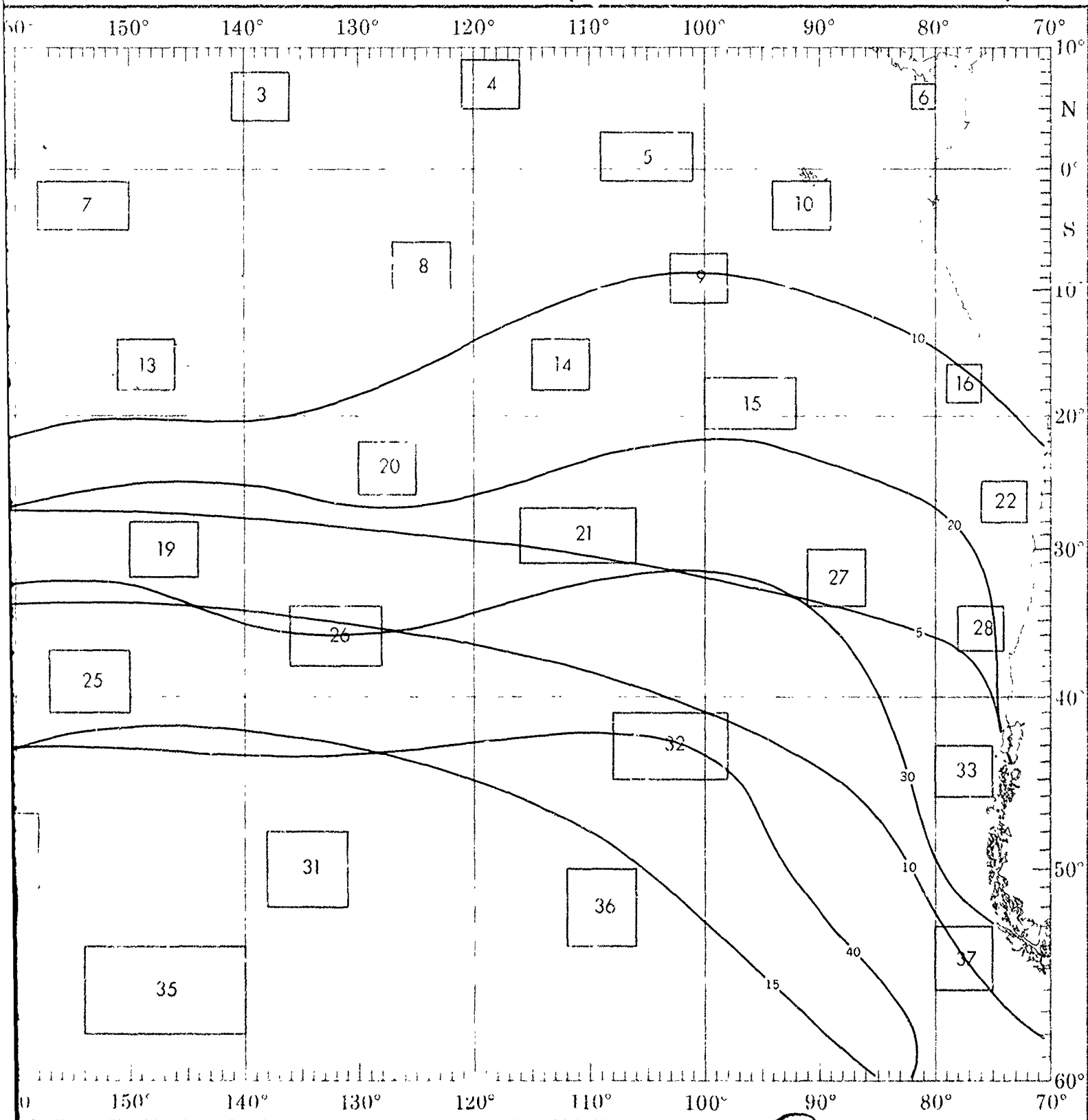
2

JUNE

WAVES (



WAVES (≥ 3.5 AND ≥ 6 METERS)



1

1

2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height

PERIOD (Seconds)

HEIGHT Meters	2-6	6-8	8-10	10-12	12-15	15-20
0-2.5	21	3	1	+	+	0
2.5-3	22	16	6	2	1	+
3-3.5	3	6	4	3	+	+
3.5-4	+	1	1	1	1	+
4-5.5	+	+	+	+	+	+
5.5-7.5	0	+	+	0	0	+
7.5-9	0	0	0	0	0	0
9-10	0	0	0	0	0	0
≥10	0	0	0	0	0	0

(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

+ indicates < 5% but > 0

Number of observations

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected

4010

BLUE LINE Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE - Percent frequency of wave height ≥ 6 meters (20 feet)

[illegible]

**INSUFFICIENT
DATA**

INSUFFICIENT DATA

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where necessary to show the general trend.

HEIGHT

JUNE

0-17 seconds)

when both are reported If both

1

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	28	5	0	2	0 0 5
1-1.5	20	17	3	3	1 0 0
2-2.5	6	2	5	0	0 0 0
3-3.5	0	0	0	0	1 0 0
4-5.5	0	0	2	0	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

100

2

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	4	2	1	1	0 0 2
1-1.5	21	20	11	1	0 0 1
2-2.5	7	12	5	1	1 + 1
3-3.5	0	4	2	1	1 + +
4-5.5	0	1	0	0	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

251

3

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	1	1	1	0 0 4
1-1.5	25	17	12	4	1 0 5
2-2.5	5	4	5	2	0 0 1
3-3.5	1	2	0	1	1 2 0
4-5.5	1	1	0	1	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

184

4

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	8	0	0	0	0 0 2
1-1.5	29	11	13	4	1 1 2
2-2.5	4	9	8	1	0 1 1
3-3.5	0	2	0	2	1 1 0
4-5.5	0	0	0	0	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

128

5

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	10	1	0	1	0 0 3
1-1.5	19	20	9	1	2 1 1
2-2.5	3	11	6	2	1 0 1
3-3.5	+	4	2	2	+
4-5.5	0	0	1	1	+
6-7.5	0	0	0	0	+
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

394

6

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	17	2	1	1	0 0 6
1-1.5	27	20	5	2	1 1 5
2-2.5	4	4	2	1	0 + 1
3-3.5	0	+	+	+	0 0 0
4-5.5	+	+	0	0	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

532

7

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	18	1	1	0	0 0 0
1-1.5	26	23	4	0	1 1 3
2-2.5	1	11	1	2	0 2 1
3-3.5	0	2	1	1	0 0 0
4-5.5	0	0	0	0	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

142

8

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	1	0	0	0 0 0
1-1.5	16	10	7	2	1 1 2
2-2.5	5	14	17	2	2 1 1
3-3.5	1	5	4	+	+
4-5.5	0	+	1	1	0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

429

9

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	1	+	0	0	0 0 0
1-1.5	15	10	3	1	1 + 1
2-2.5	8	17	9	4	2 1 1
3-3.5	1	6	5	3	+
4-5.5	1	1	1	1	0 0 +
6-7.5	0	+	0	+	0 + 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

518

10

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	1	+	0	0 0 1
1-1.5	23	21	7	2	4 1 3
2-2.5	6	11	5	2	1 1 0
3-3.5	+	2	2	+	+
4-5.5	1	0	1	+	+
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

682

14

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	+	+	0	0 0 +
1-1.5	14	11	2	3	2 + 1
2-2.5	7	12	14	2	2 1 1
3-3.5	1	6	3	5	1 0 +
4-5.5	0	3	1	1	1 + 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

412

15

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	0	1	0	0 0 0
1-1.5	8	18	10	2	0 0 4
2-2.5	1	4	13	8	3 2 2
3-3.5	0	3	3	2	5 2 0
4-5.5	0	1	4	1	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

120

16

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	5	2	0	0	0 0 8
1-1.5	17	17	4	2	2 0 2
2-2.5	3	10	6	3	2 3 1
3-3.5	1	0	1	0	0 1 2
4-5.5	1	2	1	1	0 0 1
6-7.5	0	0	0	1	1 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

132

17

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	6	1	0	0	0 0 2
1-1.5	14	13	7	2	0 0 2
2-2.5	2	14	13	1	1 0 1
3-3.5	1	3	4	2	0 0 0
4-5.5	0	1	1	1	1 0 1
6-7.5	0	0	2	0	1 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

202

18

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	4	+	+	0	0 0 0
1-1.5	11	9	5	3	+
2-2.5	5	14	9	2	2 2 3
3-3.5	1	9	3	2	1 0 +
4-5.5	+	1	2	0	1 1 0
6-7.5	0	0	0	1	+
8-9.5	0	1	0	0	0 0 0
>10	0	0	0	+	0 0 0

261

23

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	4	+	0	0	0 0 1
1-1.5	11	9	3	2	+
2-2.5	5	12	8	3	1 + 3
3-3.5	2	6	7	4	1 1 1
4-5.5	+	4	4	3	1 2 +
6-7.5	0	+	1	+	0 + +
8-9.5	0	0	+	0	0 0 0
>10	0	0	0	0	0 0 0

641

24

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	3	0	1	1	0 0 1
1-1.5	11	12	2	0	0 1 1
2-2.5	6	12	9	5	1 0 1
3-3.5	3	5	4	1	1 1 1
4-5.5	0	2	5	3	0 0 0
6-7.5	0	1	1	0	2 0 1
8-9.5	0	0	0	0	0 1 0
>10	0	0	0	0	0 0 0

150

25

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	1	0	0	0	0 0 1
1-1.5	5	5	1	1	0 0 0
2-2.5	4	15	13	5	1 1 1
3-3.5	3	4	5	4	1 1 2
4-5.5	1	4	3	2	3 3 1
6-7.5	0	0	3	3	1 1 1
8-9.5	0	0	1	0	0 0 0
>10	0	0	0	0	0 0 0

149

26

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	2	0	0	0	0 0 0
1-1.5	9	3	3	0	1 0 1
2-2.5	2	10	8	4	1 0 7
3-3.5	1	7	3	2	0 4 4
4-5.5	1	6	8	3	3 2 2
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

90

INSUFFICIENT DATA

INSUFFICIENT DATA

32

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	0	0	0	0	0 0 0
1-1.5	7	16	2	0	0 0 7
2-2.5	2	7	5	9	0 7 2
3-3.5	0	2	9	12	0 0 0
4-5.5	0	7	2	2	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

43

33

PERIOD (SECONDS)

HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	0	0	0	0	0 0 0
1-1.5	7	16	2	0	0 0 7
2-2.5	2	7	5	9	0 7 2
3-3.5	0	2	9	12	0 0 0
4-5.5	0	7	2	2	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

43

34

PERIOD (SECONDS)

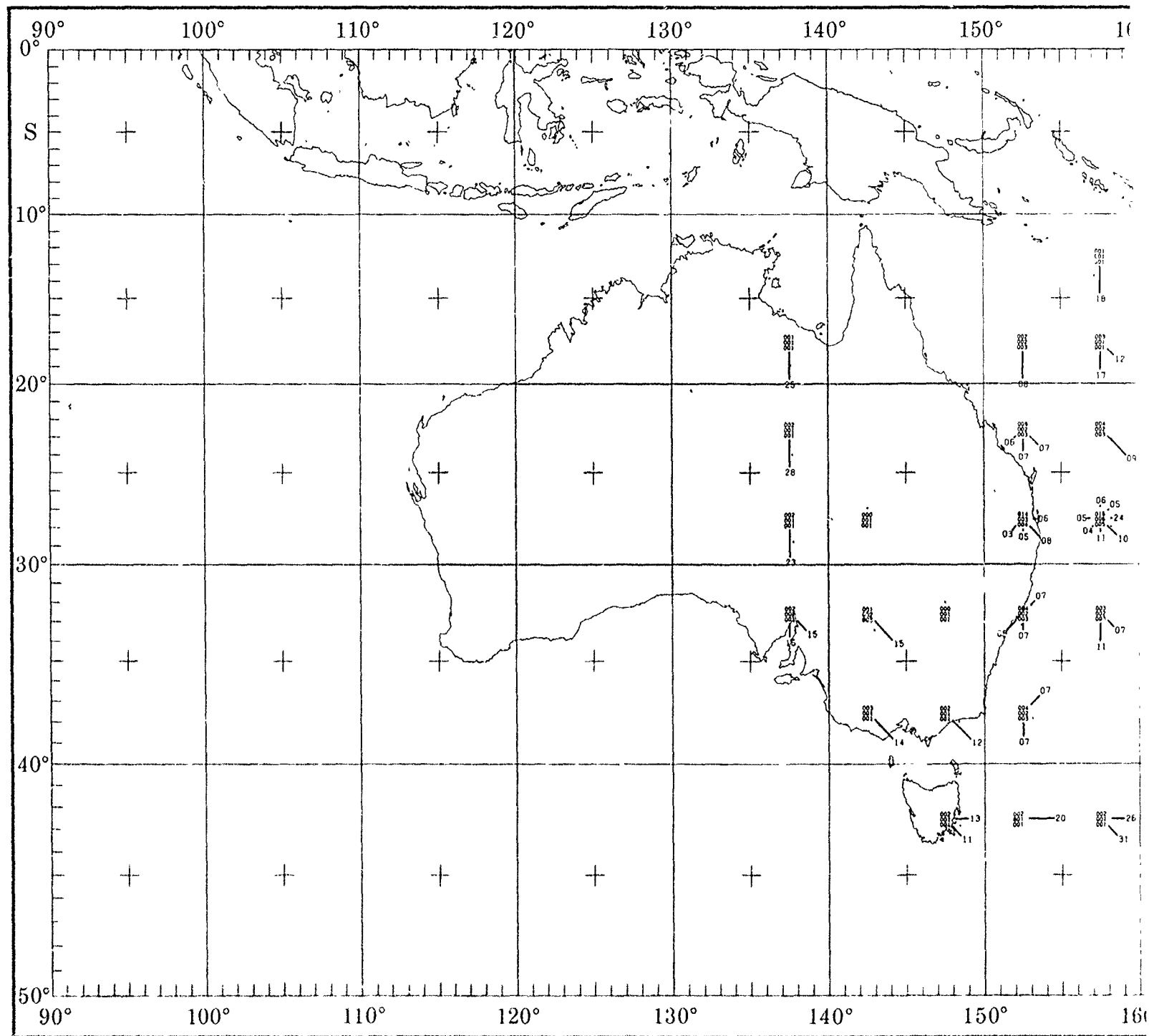
HEIGHT (MTRS)	6-7	8-9	10-11	12-13	IND
0-5	0	0	0	0	0 0 0
1-1.5	7	16	2	0	0 0 7
2-2.5	2	7	5	9	0 7 2
3-3.5	0	2	9	12	0 0 0
4-5.5	0	7	2	2	0 0 0
6-7.5	0	0	0	0	0 0 0
8-9.5	0	0	0	0	0 0 0
>10	0	0	0	0	0 0 0

43

36

**INSUFFICIENT
DATA**

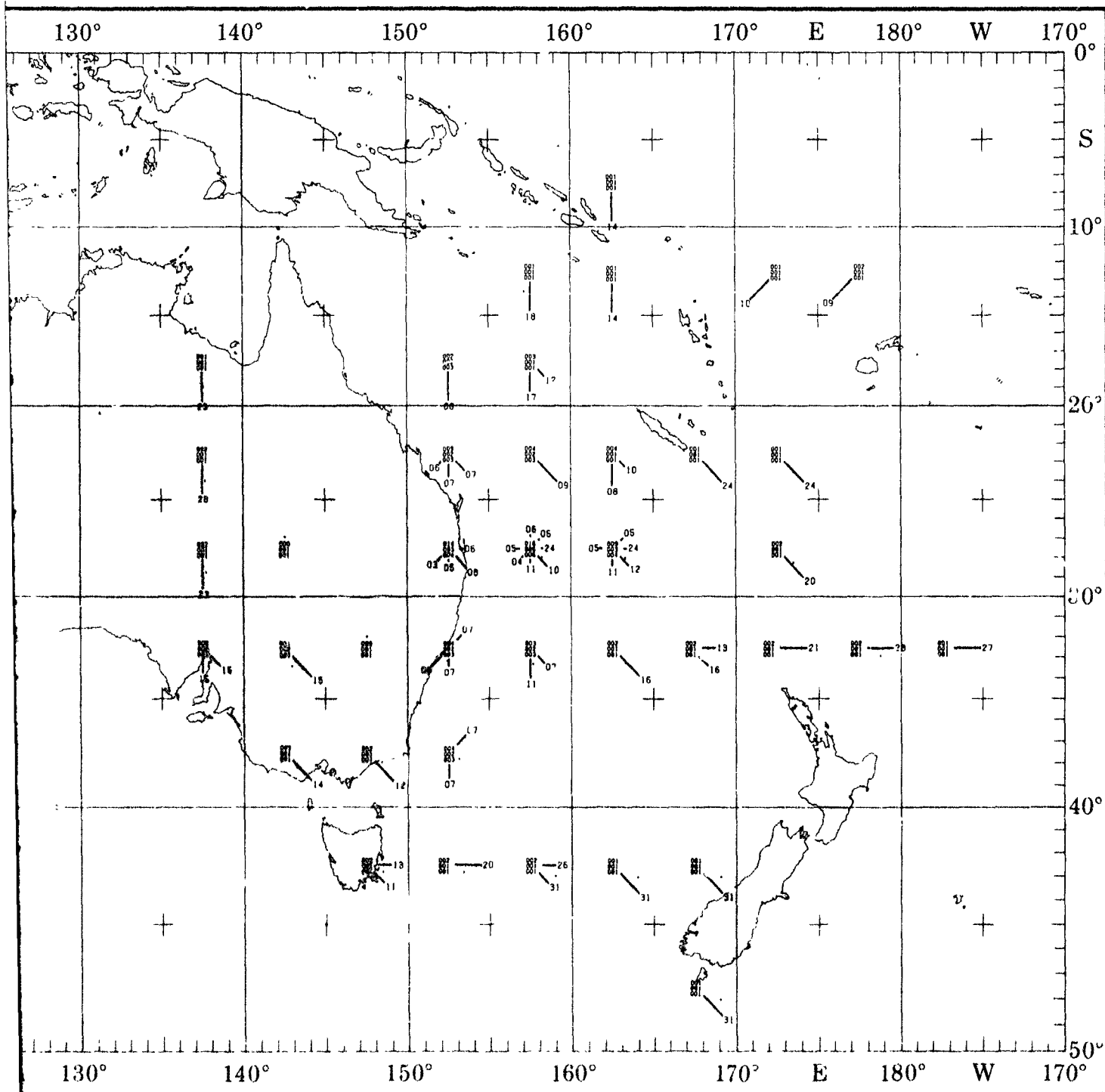
JUNE



1

1

TROPICAL CYCLONE

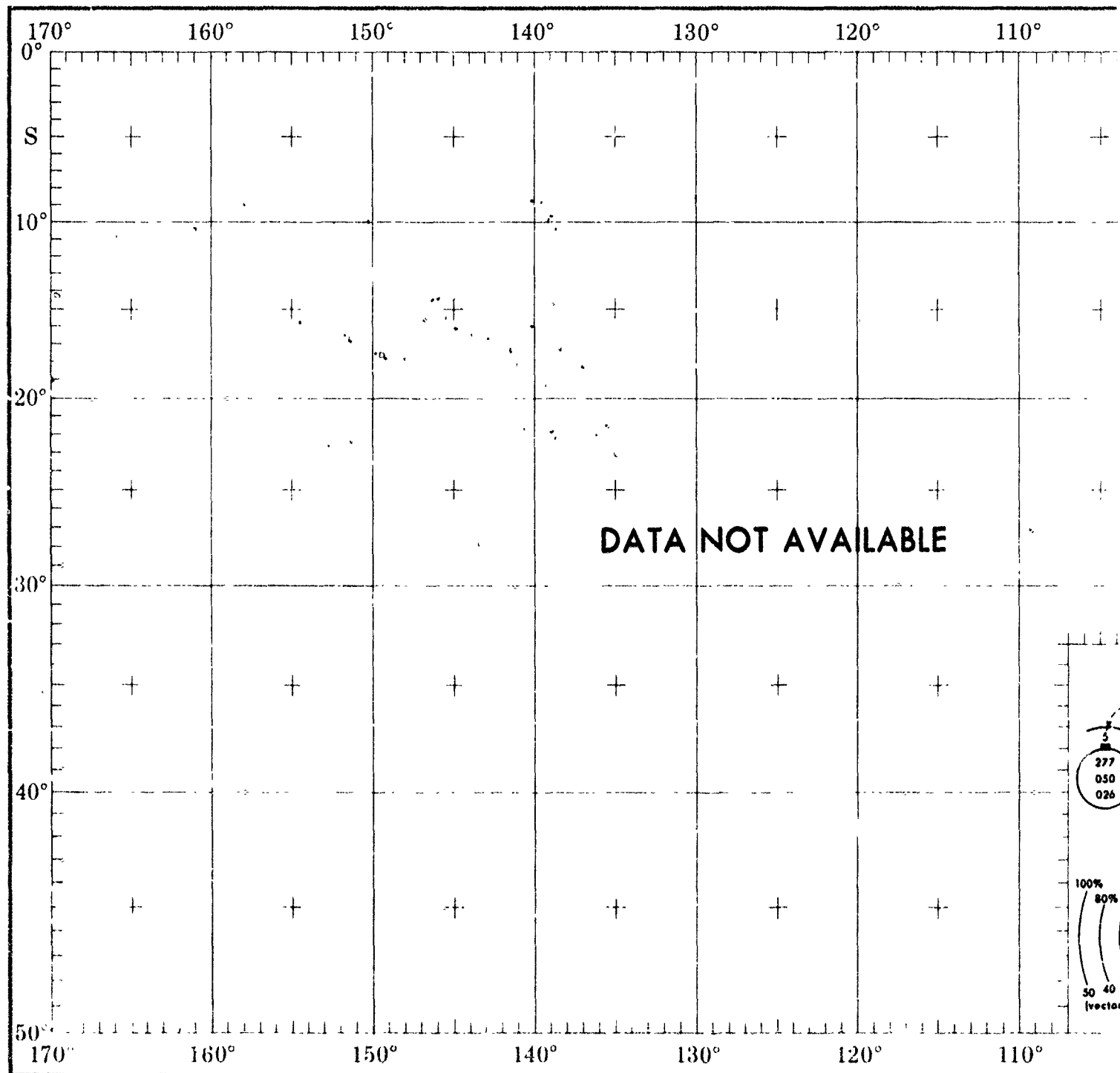


1

1

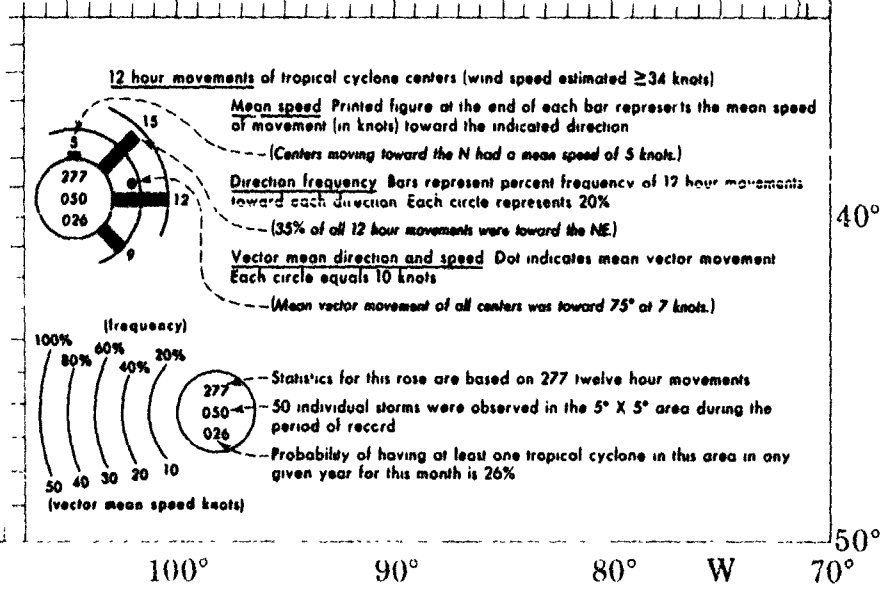
2

TROPICAL CYCLONE



JUNE

DATA NOT AVAILABLE

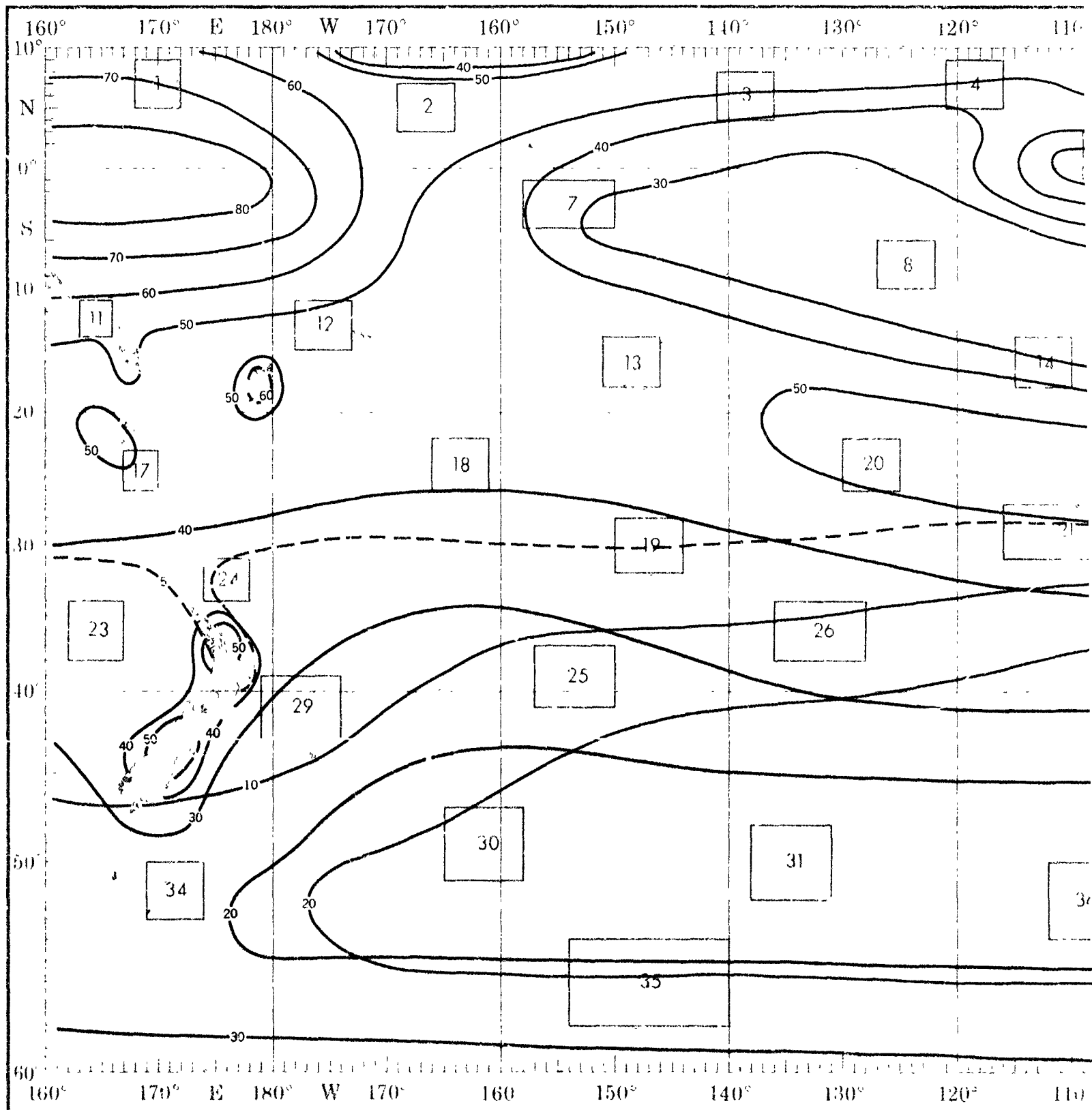


L

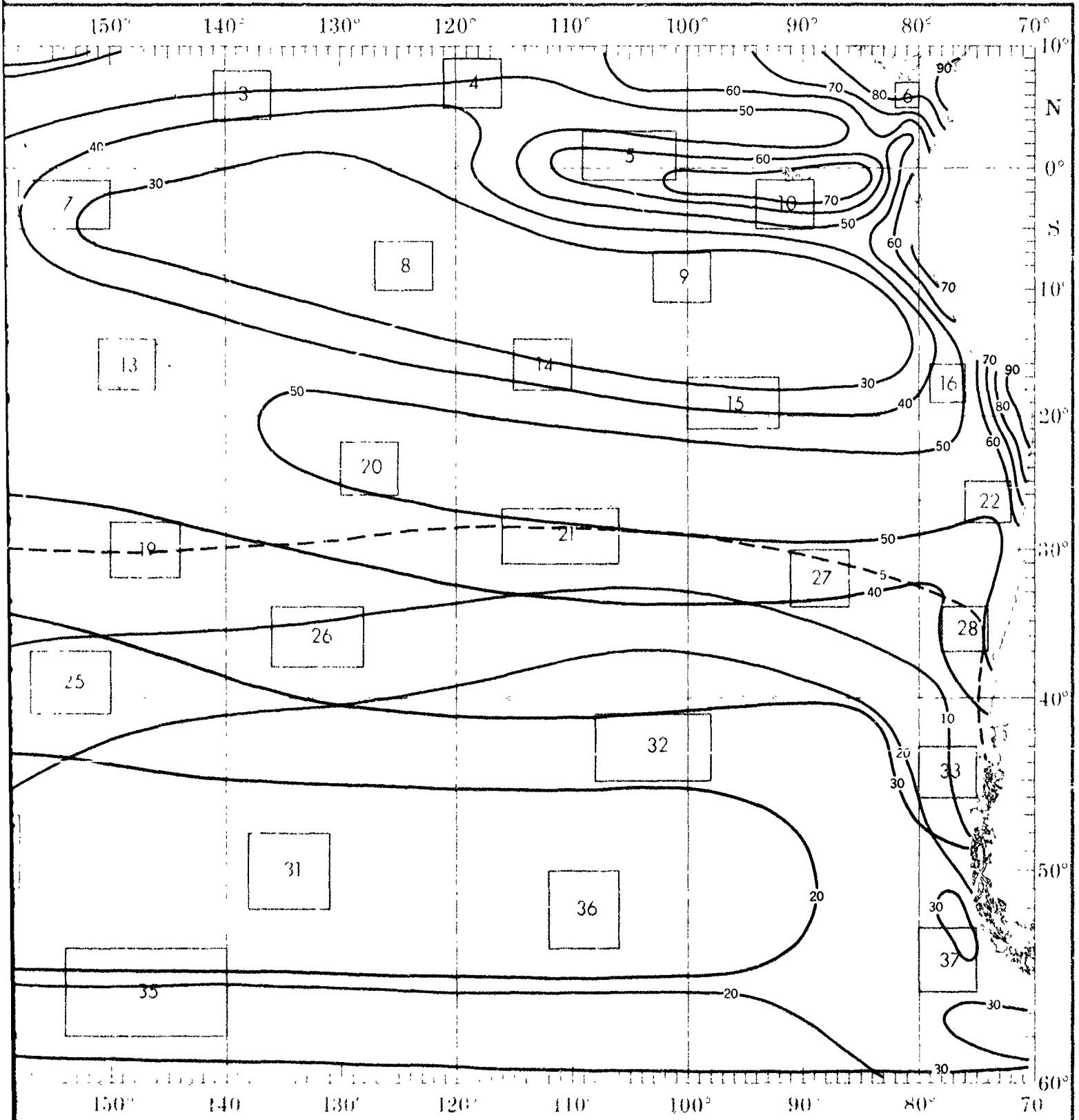
1

2

JULY

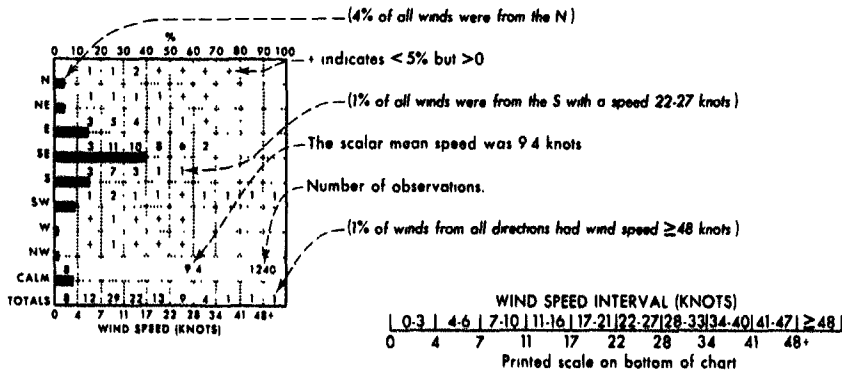


SURFACE WINDS



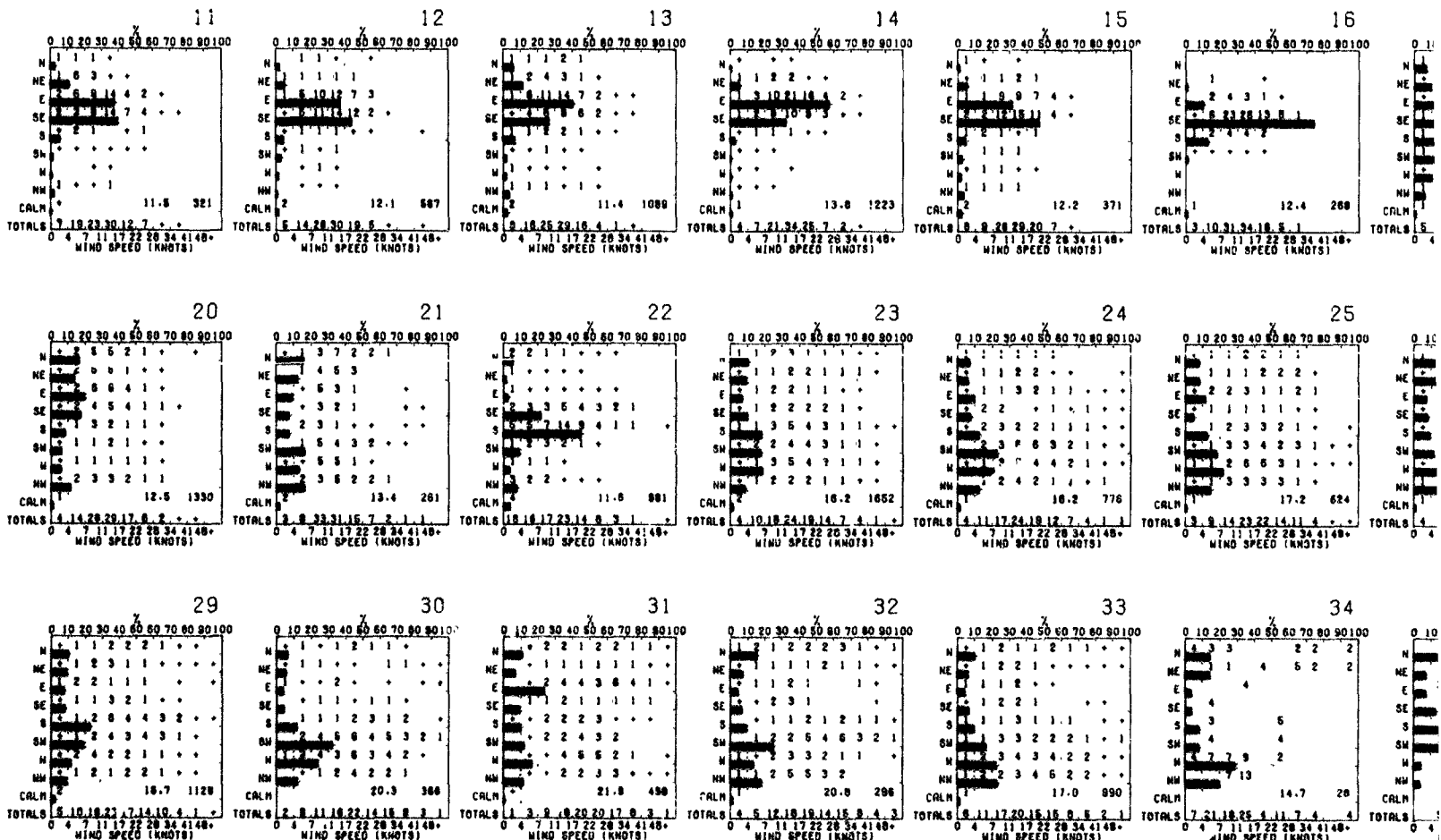
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction Speed frequency (bottom scale) Printed figures represent percent frequency of wind speeds observed from each direction



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots



Graphs represent the objective compilation of available data for specified areas without regard to bias. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias is evident.

WIND SPEED

JULY

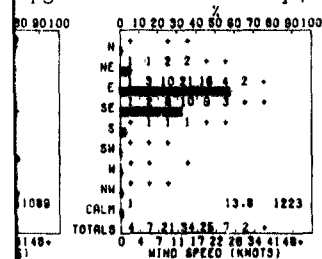
each direction Speed frequency
each direction

(nots)

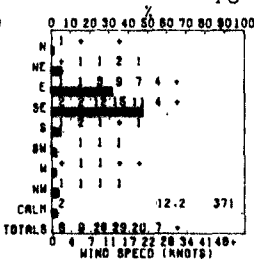
(nots)

(DTS)
34 40 41 47 48
4 41 48
hart

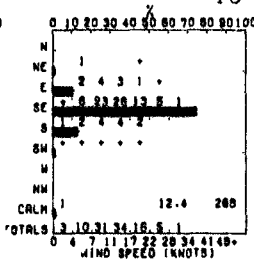
13



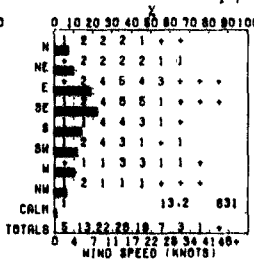
14



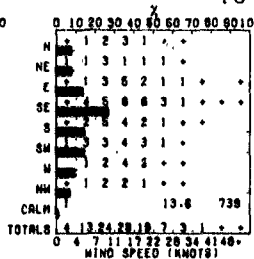
15



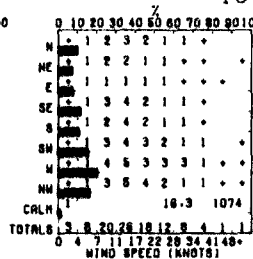
16



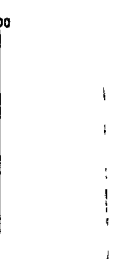
17



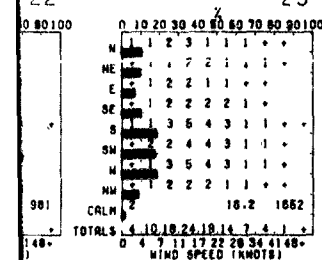
18



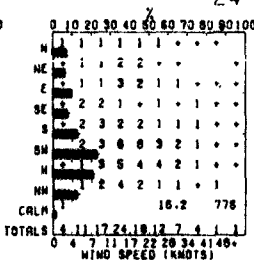
19



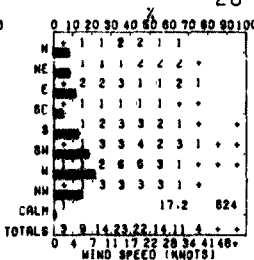
22



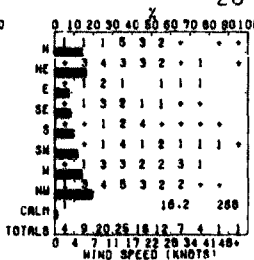
23



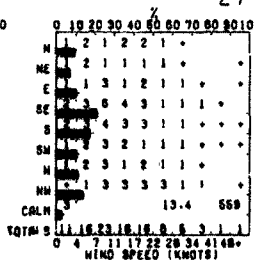
24



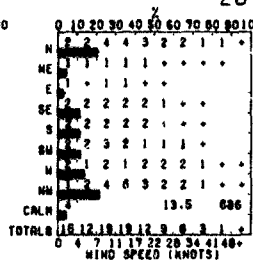
25



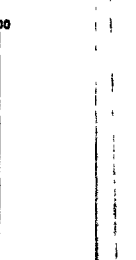
26



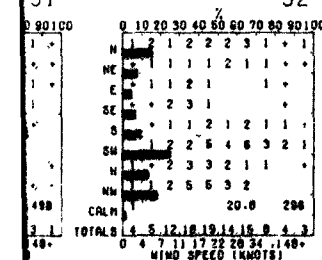
27



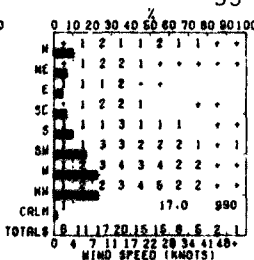
28



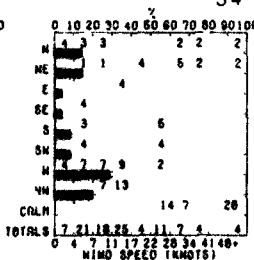
31



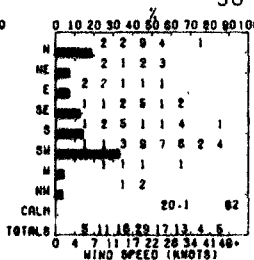
32



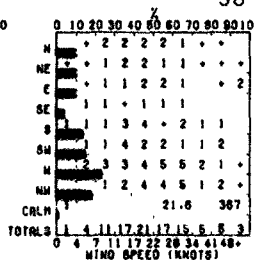
33



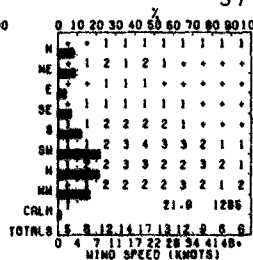
34



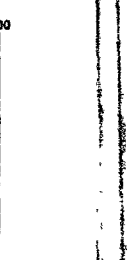
35



36



37

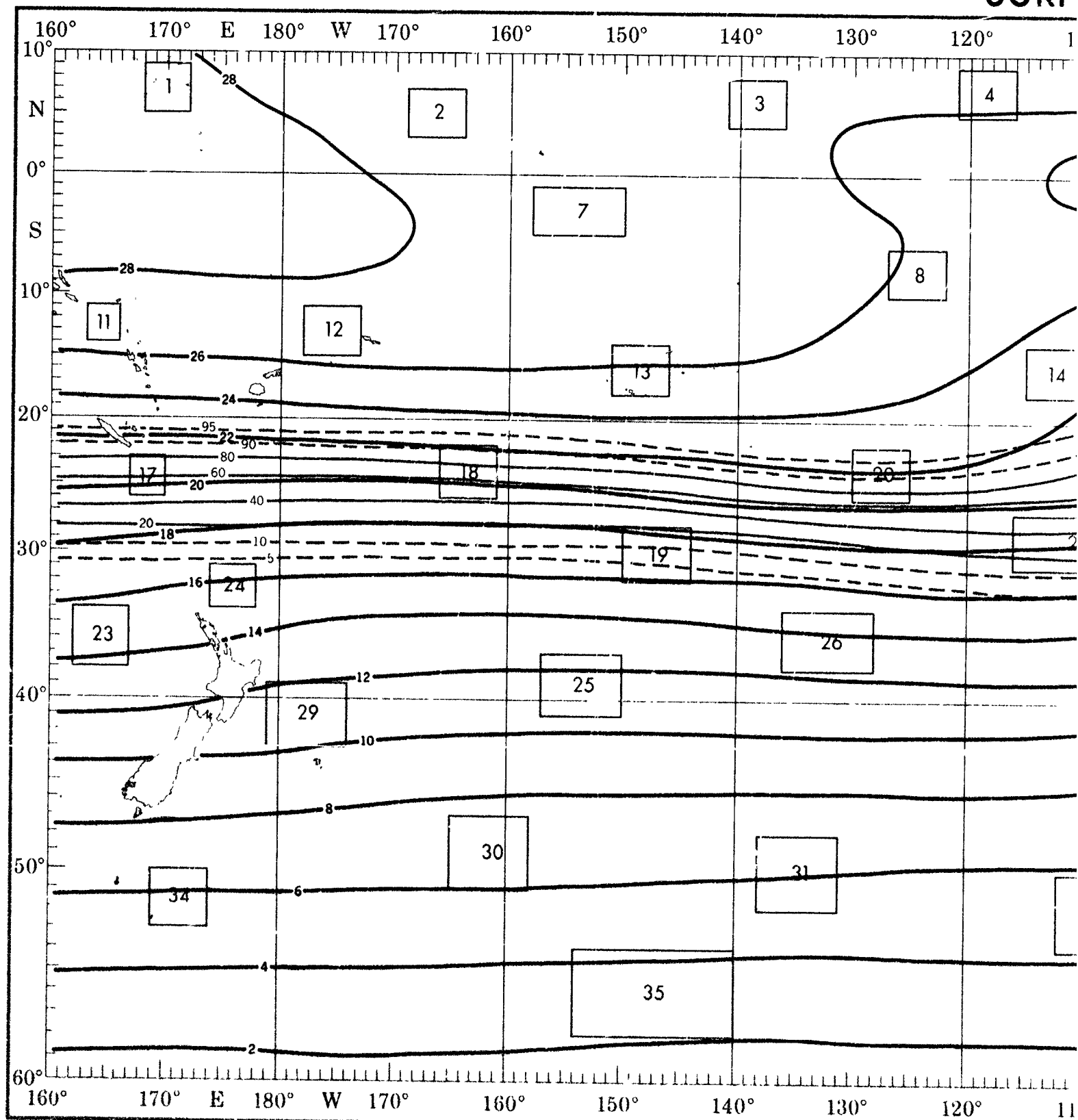


at the objective compilation of available data for specified areas without regard to suspected biases.
lyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

2

JULY

SURF

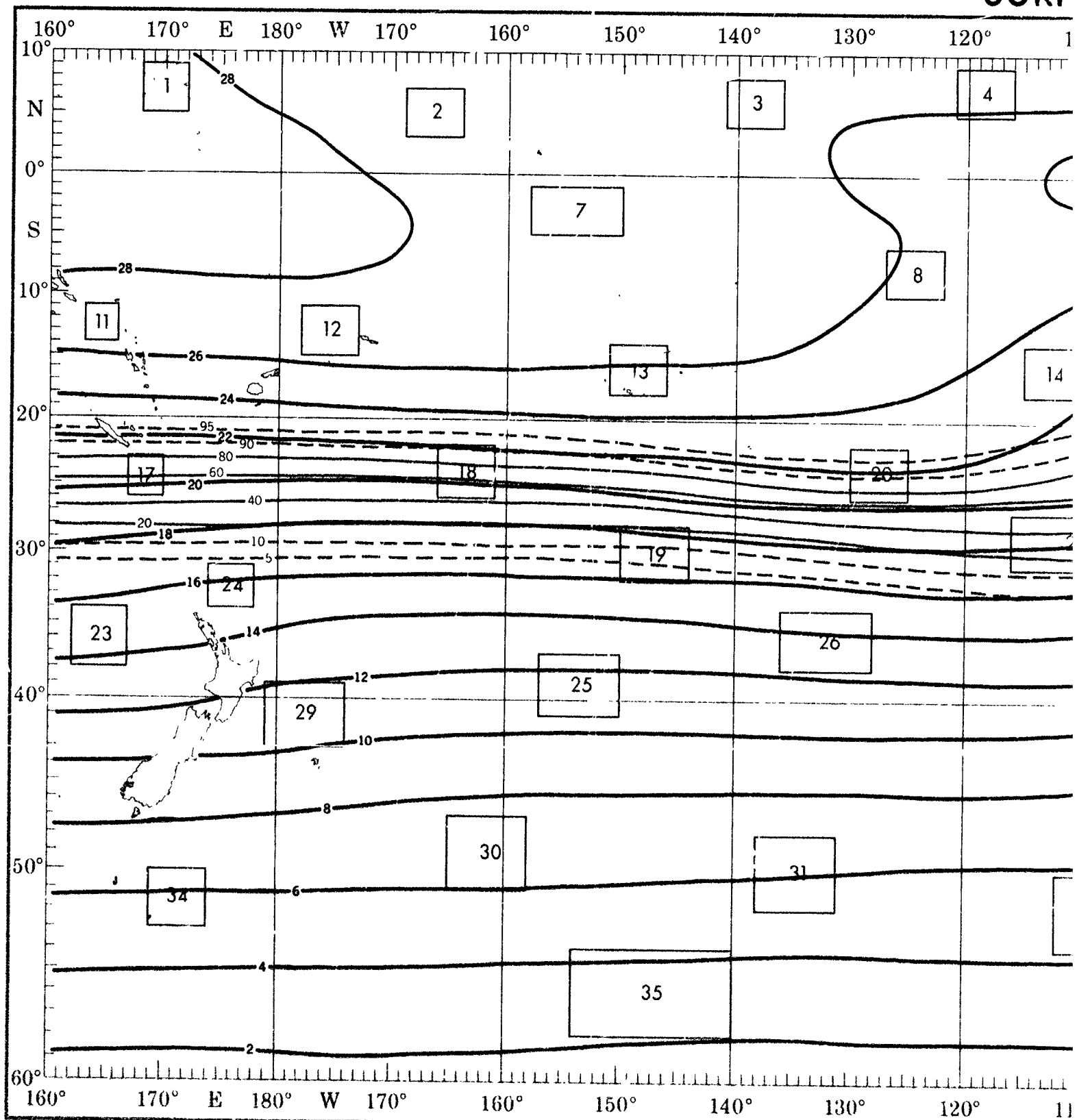


A

1

JULY

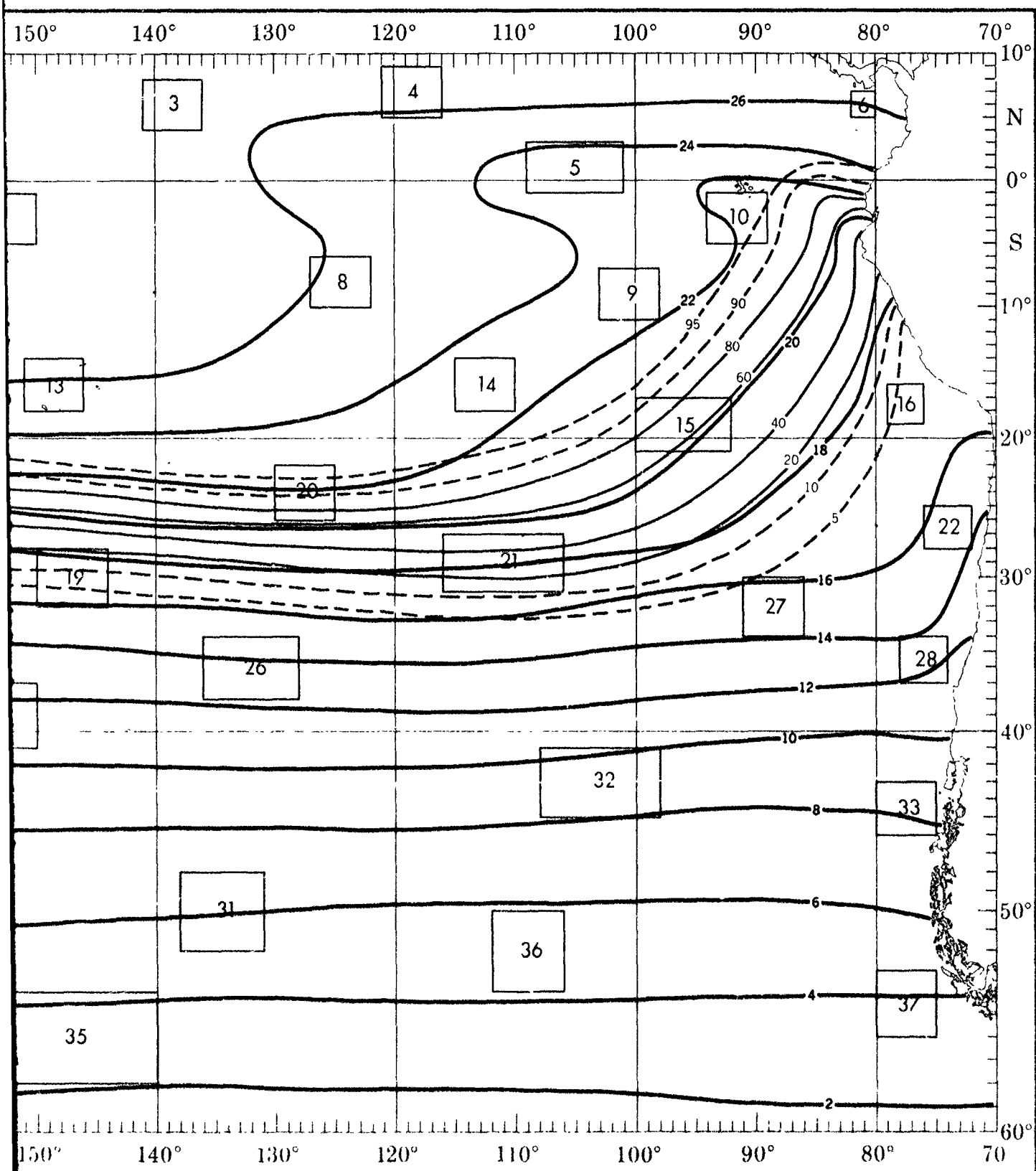
SURF



A

1

SURFACE AIR TEMPERATURE

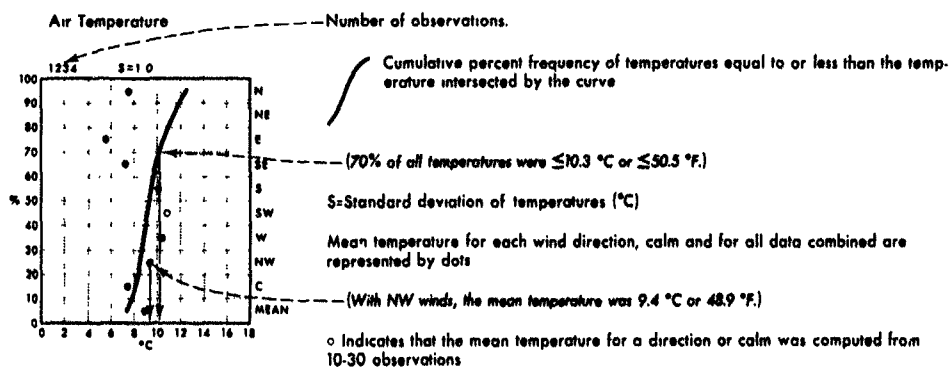


1

1

2

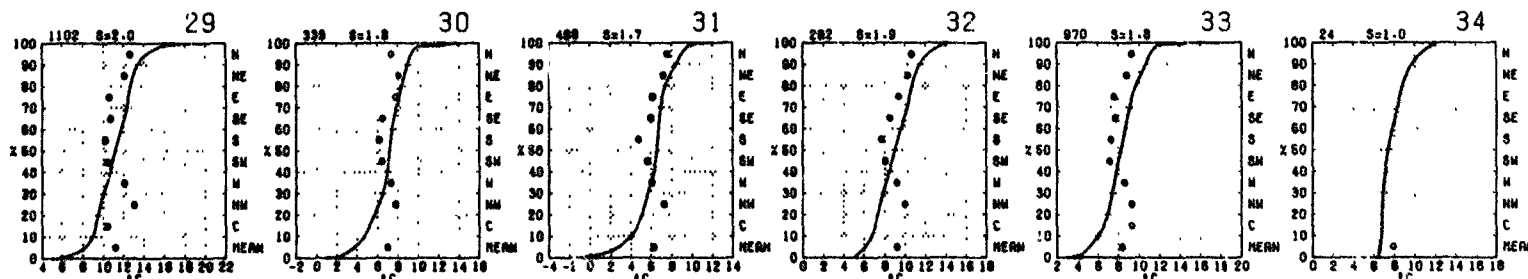
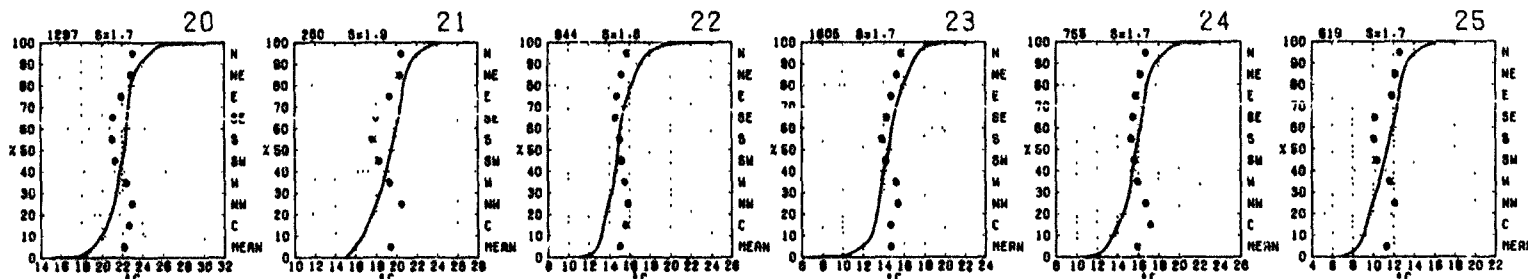
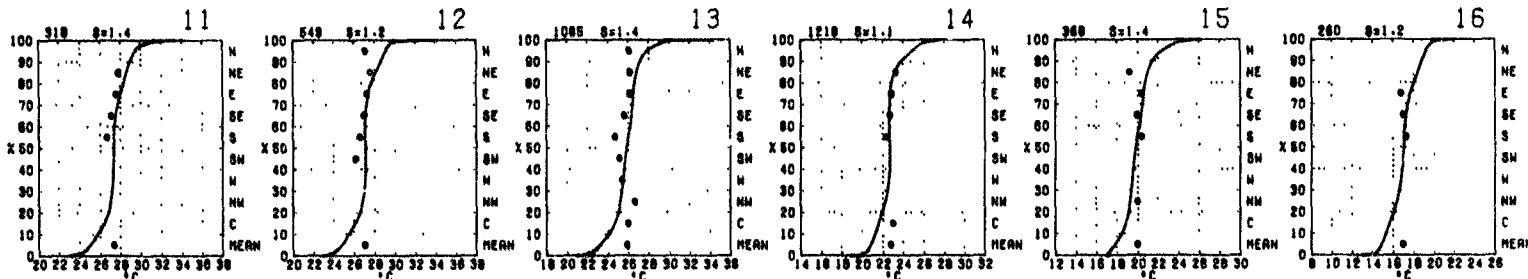
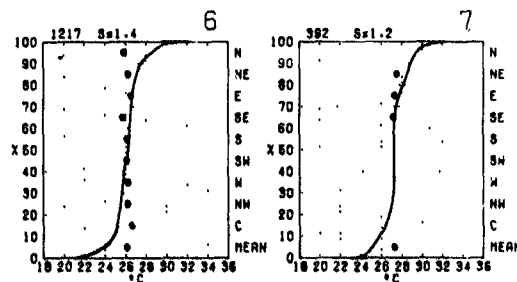
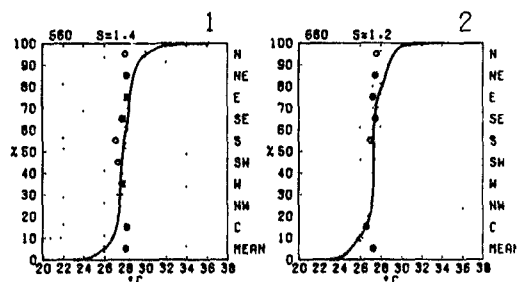
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available

BLACK LINE - Mean air temperature ($^\circ\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^\circ\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to isopleth analyses (opposite page) are based on all available data subjectively adjusted where

TURE

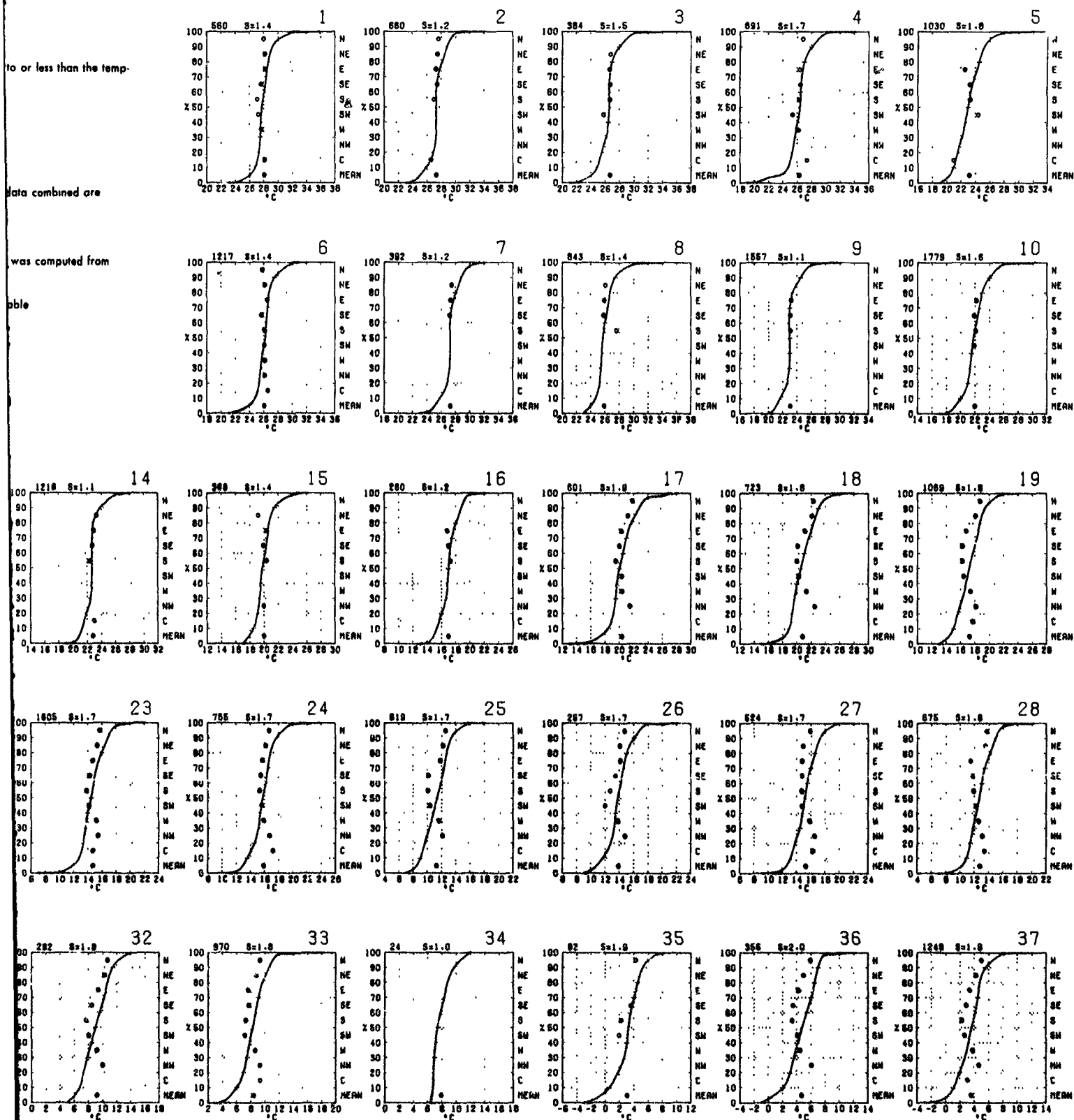
JULY

to or less than the temp-

Data combined are

was computed from

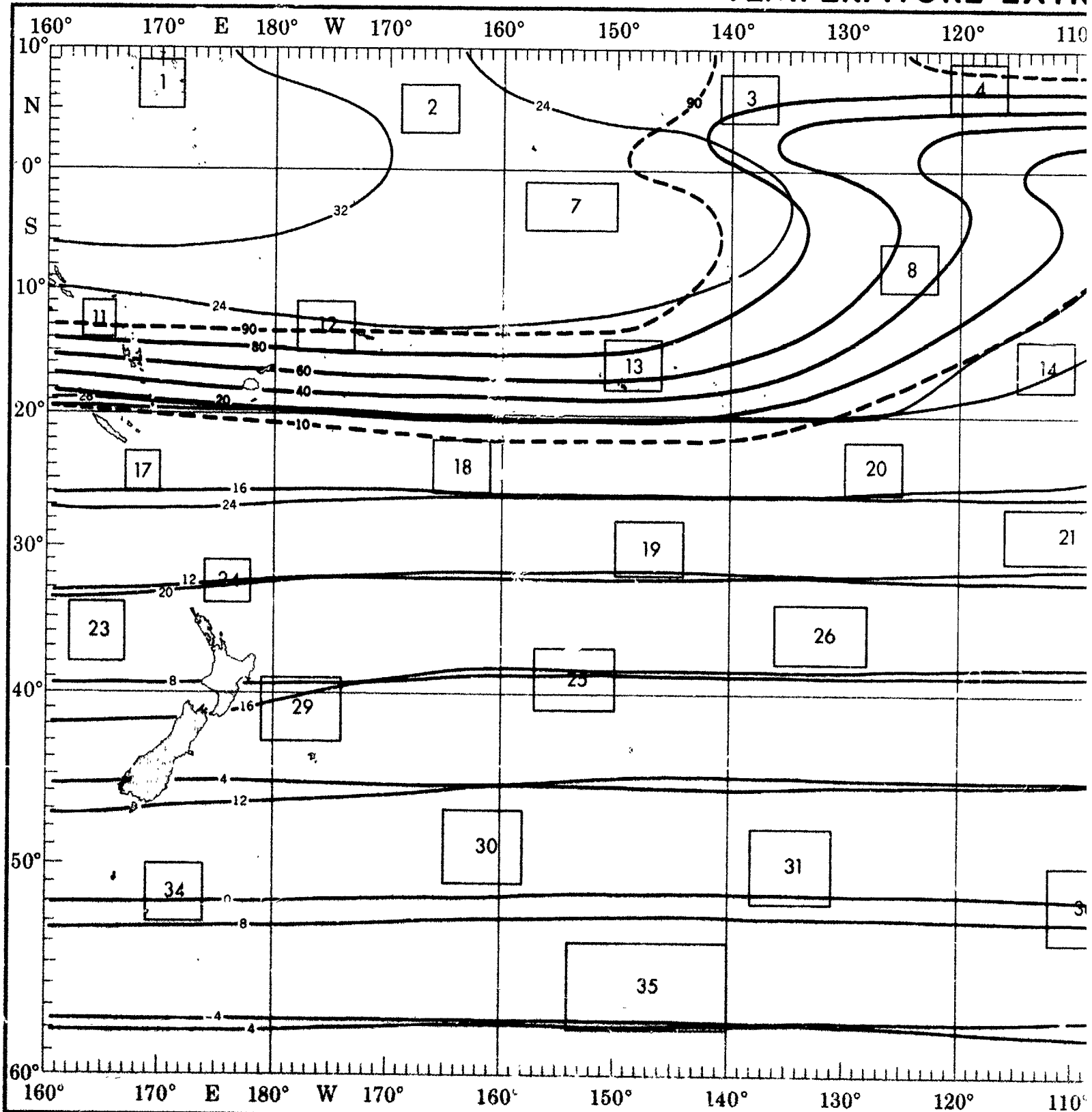
able



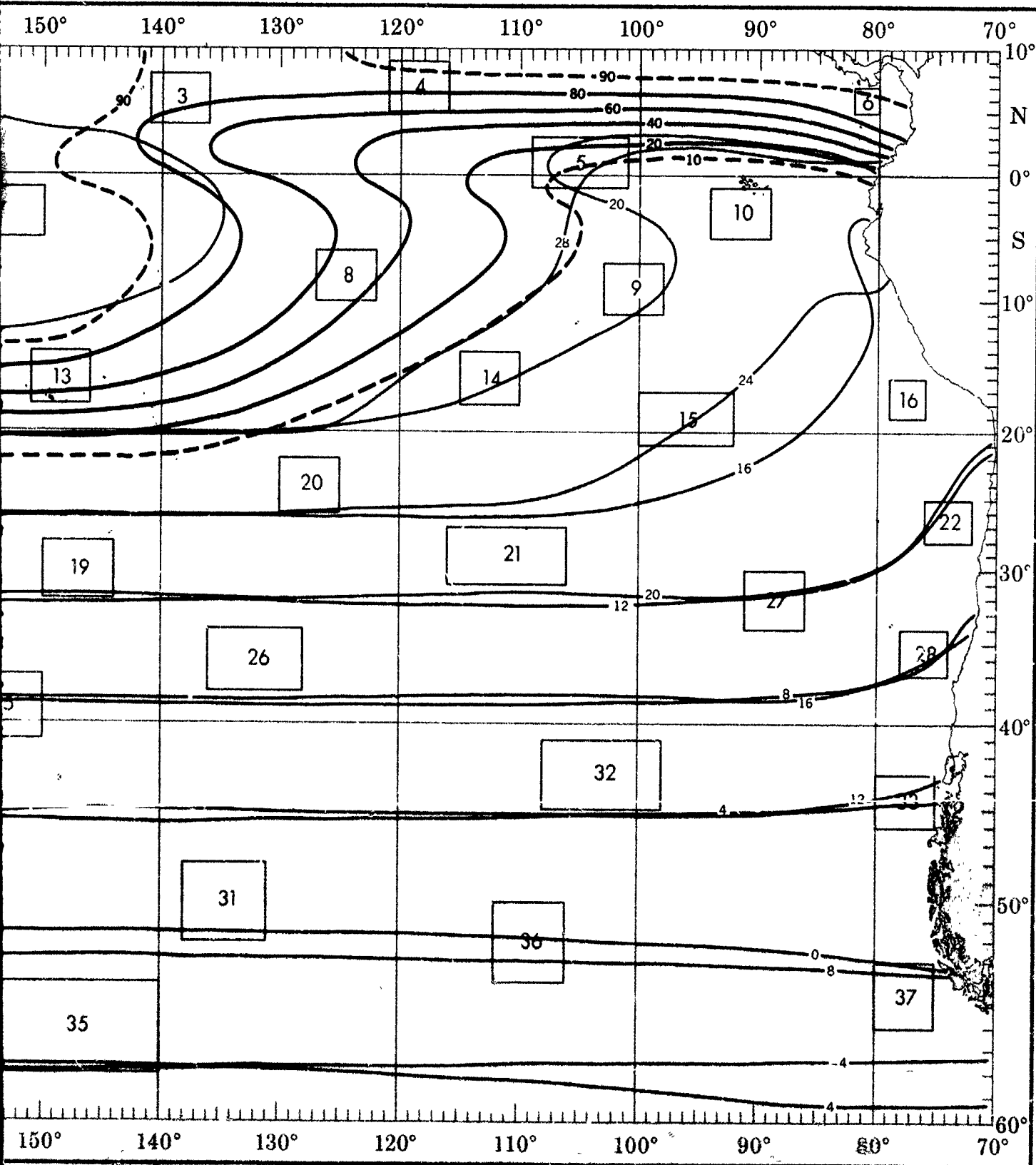
objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

JULY

TEMPERATURE EXTR



TEMPERATURE EXTREMES AND T-H INDEX



1

1

2

WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
4.5	18	8	7	1	1
7.3	17	8	7	1	1
10.1	13	6	5	1	1
12.9	1	4	0	0	0
15.7	0	0	0	0	0
18.5	0	0	0	0	0
21.3	0	0	0	0	0
24.1	0	0	0	0	0
26.9	0	0	0	0	0
29.7	0	0	0	0	0
32.5	0	0	0	0	0
35.3	0	0	0	0	0

(1% of all observations reported temperature 2.3°C simultaneously with wind speed of 22-33 kts)

+ Indicates < 5% but > 0

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

BLACK LINE - Percent frequency of T-H index ≥ 24°C (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	0	0
30.31	1	2	1	+	0
28.29	3	18	17	2	0
26.27	4	23	20	3	0
24.25	+	1	3	2	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	0	+	0	0
30.31	0	1	1	0	0
28.29	1	11	18	2	0
26.27	5	27	25	3	0
24.25	+	1	3	1	0
22.23	0	+	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	+	0	0	0
30.31	+	+	+	0	0
28.29	1	3	4	+	0
26.27	4	25	26	2	0
24.25	3	12	13	2	+
22.23	+	1	2	+	0
20.21	0	0	0	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	0	0
30.31	+	1	2	0	0
28.29	1	5	11	1	0
26.27	3	19	42	6	+
24.25	+	3	5	1	0
22.23	0	+	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	0	0	0
30.31	+	1	+	0	0
28.29	2	8	1	0	0
26.27	12	41	10	0	0
24.25	2	14	5	+	0
22.23	+	2	1	0	0
20.21	+	+	0	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	0	+	0	0
30.31	1	2	2	1	0
28.29	0	9	19	3	0
26.27	1	18	39	2	+
24.25	0	1	2	+	0
22.23	0	+	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	+	+	0	0
28.29	0	0	+	0	0
26.27	+	1	1	0	0
24.25	1	7	0	2	+
22.23	3	21	21	3	0
20.21	1	10	13	2	+
18.19	0	+	2	3	1
16.17	0	+	+	+	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	0	+	0	0	0
22.23	0	5	5	1	0
20.21	1	17	22	3	0
18.19	1	13	12	3	0
16.17	1	5	6	2	1
14.15	+	1	2	0	1
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	0	0	0	+	0
20.21	+	1	+	+	0
18.19	1	2	1	+	0
16.17	5	10	11	2	+
14.15	7	16	20	6	1
12.13	2	6	4	3	+
10.11	0	0	+	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
20.21	0	+	+	+	0
18.19	+	1	2	2	+
16.17	1	7	13	5	2
14.15	2	13	16	9	2
12.13	1	5	8	5	1
10.11	+	+	1	+	+
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
24.25	+	0	0	0	0
22.23	0	0	+	0	0
20.21	+	+	+	0	+
18.19	1	5	7	2	1
16.17	2	13	20	10	2
14.15	1	8	13	5	3
12.13	+	2	2	1	+
10.11	0	+	+	+	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
16.17	0	+	1	+	0
14.15	+	1	4	2	+
12.13	1	9	18	11	2
10.11	1	10	16	7	1
8.9	+	4	4	4	1
6.7	+	0	1	+	+
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
16.19	0	+	+	0	0
14.17	+	1	+	+	+
12.15	+	2	4	3	1
10.13	1	11	14	9	2
8.11	3	8	14	7	2
6.9	1	4	7	5	1
4.7	1	1	1	+	+
2.5	0	0	0	+	+
0.3	0	0	0	0	0
-2.1	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
18.13	0	+	0	1	0
16.11	0	+	2	1	+
14.9	1	5	17	7	3
12.7	1	11	18	13	5
10.5	0	3	3	4	3
8.3	0	0	1	2	+
6.1	0	0	0	0	+
3.9	0	0	0	0	0
1.7	0	0	0	0	0
-0.5	0	0	0	0	0
-2.7	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
10.11	0	0	+	1	1
8.9	+	2	7	10	3
6.7	+	8	19	17	8
4.5	+	2	8	7	1
2.3	0	+	3	2	0
0.1	0	0	0	+	0
-2.1	0	0	+	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
12.13	1	1	5	7	1
10.11	2	7	12	8	4
8.9	1	8	13	8	2
6.7	+	4	4	6	7
4.5	0	0	+	+	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
16.17	+	+	0	0	0
14.15	+	+	+	0	0
12.13	+	+	1	+	+
10.11	1	5	7	9	3
8.9	3	13	15	9	3
6.7	1	8	10	4	2
4.5	1	1	1	1	+
2.3	0	+	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
10.11	0	4	4	0	0
8.9	0	25	25	8	4
6.7	4	13	4	4	4
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0
-6.5	0	0	0	0	0
-8.7	0	0	0	0	0
-10.9	0	0	0	0	0

Graphs represent the objective compilation of available data for specified areas without regard to The isopleth (opposite page) are based on all available data subjectively adjusted where

JULY

(°C) and wind speed

speed of 22 33 kts)

Explained in the text

(due to heat)

(than the given value)

the given value)

1

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
35.37	+	0	0	0	0
34.35	+	0	0	0	0
32.33	+	1	0	0	0
30.31	2	4	3	+	0
28.29	8	31	18	+	0
26.27	6	16	9	+	0
24.25	+	1	+	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

561

2

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
34.35	0	0	+	0	0
32.33	0	+	0	0	0
30.31	+	1	1	0	0
28.29	1	19	21	+	0
26.27	4	29	16	+	0
24.25	+	3	2	+	0
22.23	+	5	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

668

3

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
34.35	0	0	+	0	0
32.33	0	+	0	0	0
30.31	1	1	2	0	0
28.29	2	11	7	0	0
26.27	3	30	27	2	0
24.25	1	6	7	+	0
22.23	0	2	+	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

386

4

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
32.35	+	+	0	0	0
30.31	1	1	+	0	0
28.29	3	7	5	+	0
26.27	4	26	27	2	0
24.25	1	10	5	+	+
22.23	0	1	1	0	0
20.21	+	1	1	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

693

5

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	+	0	0
28.29	+	1	+	0	0
26.27	+	3	5	+	0
24.26	1	17	15	+	0
22.23	2	27	12	+	0
20.21	2	12	1	+	0
18.19	1	1	+	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

1035

6										7										8										9										10									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34								
32.33	0	+	0	0	0	32.33	0	0	+	0	0	34.35	0	+	0	0	0	30.31	0	0	+	0	0	28.28	0	0	+	0	0	28.28	0	+	+	0	0	28.28	0	+	+	0	0	28.28	0	+	+	0	0		
30.31	+	1	+	0	0	30.31	1	2	2	1	0	30.31	0	0	+	0	0	28.28	0	0	+	0	0	28.28	0	0	+	0	0	24.26	0	1	1	0	0	28.28	0	0	+	0	0	28.28	0	0	+	0	0		
28.28	2	8	1	0	0	28.28	0	9	19	3	0	28.28	+	1	1	0	0	28.27	0	1	2	+	0	28.27	0	1	2	+	0	24.26	+	7	6	+	0	22.23	1	28	15	+	0	28.28	0	0	+	0	0		
26.27	12	41	10	0	0	26.27	1	18	39	2	+	26.27	+	2	6	+	0	24.26	+	6	20	1	0	22.23	+	19	48	5	0	20.21	1	25	10	+	0	19.18	0	2	2	0	0	28.28	0	0	+	0	0		
24.26	2	14	5	+	0	24.26	0	1	2	+	0	24.26	+	11	37	4	+	24.26	+	9	25	1	0	22.23	0	1	3	+	0	20.21	0	1	3	+	0	18.16	0	0	0	0	0	28.28	0	0	+	0	0		
22.23	+	2	1	0	0	22.23	0	+	0	+	0	22.23	0	+	+	0	0	22.23	0	+	+	0	0	18.16	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	28.28	0	0	+	0	0		
20.21	+	+	0	+	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	20.21	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	28.28	0	0	+	0	0		
18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	28.28	0	0	+	0	0		
16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	28.28	0	0	+	0	0		
14.16	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	28.28	0	0	+	0	0		
12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	14.16	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	28.28	0	0	+	0	0		

WIND SPEED (KTS) 14

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	20.29	0	+	+	0	0
0	20.27	+	1	2	0	0
0	24.26	+	6	11	1	0
0	22.23	3	19	42	6	+
0	20.21	+	3	5	1	0
0	10.10	0	+	+	0	0
0	10.17	0	0	0	0	0
0	14.16	0	0	0	0	0
0	12.13	0	0	0	0	0
0	10.11	0	0	0	0	0
9	0.0	0	0	0	0	0

1223

WIND SPEED (KTS) 15

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	20.27	+	0	0	0	0
0	24.25	+	+	+	1	0
0	22.23	2	4	8	1	0
0	20.21	3	16	23	2	0
0	10.10	3	14	18	4	0
0	10.17	+	1	1	0	0
0	14.16	0	0	0	0	0
0	12.13	0	0	0	0	0
0	10.11	0	0	0	0	0
0	0.0	0	0	0	0	0
0	0.7	0	0	0	0	0

376

WIND SPEED (KTS) 16

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	20.21	0	2	2	0	0
0	10.10	1	12	13	2	0
0	10.17	2	25	31	4	0
0	14.16	+	4	4	+	0
0	12.13	0	0	0	0	0
0	10.11	0	0	0	0	0
0	0.0	0	0	0	0	0
0	0.7	0	0	0	0	0
0	4.0	0	0	0	0	0
0	2.0	0	0	0	0	0
0	0.1	0	0	0	0	0

280

WIND SPEED (KTS) 17

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	20.20	0	+	+	0	0
0	20.27	0	1	1	0	0
0	24.26	+	2	1	+	0
0	22.23	1	6	9	2	0
0	20.21	3	12	20	4	+
0	10.10	2	10	18	3	+
0	10.17	0	2	1	+	0
0	14.16	+	1	0	+	0
0	12.13	0	0	0	0	0
0	10.11	0	0	0	0	0
0	0.0	0	0	0	0	0

803

WIND SPEED (KTS) 18

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	20.27	0	+	+	0	0
0	24.26	+	4	3	1	+
0	22.23	1	11	14	2	+
0	20.21	1	14	18	3	1
0	10.10	1	6	12	3	+
0	10.17	+	+	1	+	0
0	14.16	0	0	0	0	0
0	12.13	0	0	0	0	0
0	10.11	0	0	0	0	0
0	0.0	0	0	0	0	0
0	0.7	0	0	0	0	0

723

WIND SPEED (KTS) 19

4	TEMP (°C)	0-3	4-10	11-21	22-33	a 34
0	24.26	0	+	0	0	0
0	22.23	+	+	+	+	0
0	20.21	+	3	4	2	+
0	10.10	1	9	15	8	1
0	10.17	1	11	10	8	2
0	14.16	+	4	5	2	1
0	12.13	+	+	+	+	+
0	10.11	0	0	0	0	0
0	0.0	0	0	0	0	0
0	0.7	0	0	0	0	0
0	4.0	0	0	0	0	0

1094

23										24										25										26										27										28									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34						
20.21	0	+	+	+	0	24.28	+	0	0	0	0	16.17	0	-	1	+	0	22.23	0	0	+	0	0	26.21	+	0	+	0	0	16.18	0	+	+	0	0	10.18	0	+	+	0	0	10.18	0	+	+	0	0	10.18	0	+	+	0	0						
18.18	+	1	2	2	+	22.23	0	0	+	0	0	14.16	+	1	4	2	+	20.21	0	0	0	0	0	18.18	2	3	4	2	+	18.17	1	1	1	1	+	18.17	1	1	1	1	+	18.17	1	1	1	1	+	18.17	1	1	1	1	+						
16.17	1	7	13	5	2	20.21	+	+	+	0	0	12.13	1	9	16	11	2	16.18	0	0	0	+	0	16.17	4	12	9	5	1	14.18	5	0	10	5	2	14.18	5	0	10	5	2	14.18	5	0	10	5	2	14.18	5	0	10	5	2						
14.15	2	13	18	9	2	18.18	1	5	7	2	1	10.11	1	10	16	7	1	16.17	0	4	7	7	7	14.16	4	21	14	8	2	12.13	6	16	19	7	2	12.13	6	16	19	7	2	12.13	6	16	19	7	2	12.13	6	16	19	7	2						
12.13	1	5	9	5	1	16.17	2	13	20	10	2	8.8	+	4	4	4	1	14.16	0	11	19	8	1	12.13	1	4	3	1	1	10.11	3	6	7	3	1	10.11	3	6	7	3	1	10.11	3	6	7	3	1	10.11	3	6	7	3	1						
10.11	+	5	1	+	+	14.16	1	8	13	5	3	8.7	+	0	1	+	+	12.13	5	14	12	5	2	8.8	0	0	0	0	0	8.8	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0						
8.8	0	0	0	0	0	12.13	+	2	2	1	+	4.5	0	0	0	0	0	10.11	0	+	3	2	1	8.8	0	0	0	0	0	8.8	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0						
8.7	0	0	0	0	0	10.11	0	+	+	+	0	2.5	0	0	0	0	0	8.8	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0	8.7	0	0	0	0	0						
4.5	0	0	0	0	0	8.8	0	0	0	0	0	0.1	0	0	0	0	0	8.7	0	0	0	0	0	4.5	0	0	0	0	0	4.5	0	0	0	0	0	4.5	0	0	0	0	0	4.5	0	0	0	0	0	4.5	0	0	0	0	0						
2.3	0	0	0	0	0	6.7	0	0	0	0	0	-2.1	0	0	0	0	0	6.7	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0	2.3	0	0	0	0	0						
0.1	0	0	0	0	0	4.5	0	0	0	0	0	-4.3	0	0	0	0	0	4.5	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0						

1616

765

821

261

821

261

821

32										33										34										35										36										37									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34						TEMP (°C)	0-3	4-10	11-21	22-33	34						TEMP (°C)	0-3	4-10	11-21	22-33	34						TEMP (°C)	0-3	4-10	11-21	22-33	34						TEMP (°C)	0-3	4-10	11-21	22-33	34										
12.13	1	1	5	7	1						16.17	0	+	0	0	0						10.11	0	4	4	0	U						8.7	0	5	5	2	1						10.11	0	0	+	+	0										
10.11	2	7	12	8	4						14.16	+	+	+	0	0						8.8	0	25	25	8	4						4.5	0	2	16	7	0						10.11	0	0	+	+	1	1									
6.9	1	6	13	8	2						12.13	+	+	1	+	+						8.7	4	13	4	4	4						2.3	0	6	21	12	4						6.7	+	3	15	14	5										
6.7	+	4	4	4	6	7						10.11		5	7	9	3						4.5	0	0	0	0	0						0.1	0	1	4	9	1						4.5	+	8	12	9	8									
4.5	0	0	+	+	+	0						8.8	3	13	15	9	3						2.3	0	0	0	0	0						-2.1	0	1	0	0	0	2						-4.3	0	0	0	0	0								
2.3	0	0	0	0	0	0						8.7	1	6	10	4	2						8.1	0	0	0	0	0						-4.3	0	0	0	0	0	0						-2.1	0	0	0	0	0								
0.1	0	0	0	0	0	C						4.5	1	1	1	1	+						-2.1	0	0	0	0	0						-8.7	0	0	0	0	0	0						-8.7	0	0	0	0	0								
-2.1	0	0	0	0	0	0						2.3	0	+	0	0	0						-4.3	0	0	0	0	0						-8.7	0	0	0	0	0	0						-4.3	0	0	0	0	0								
-4.3	0	0	0	0	0	0						0.1	0	0	0	0	0						-8.7	0	0	0	0	0						-16.9	0	0	0	0	0	0						-16.9	0	0	0	0	0								
-6.6	0	0	0	0	0	0						-2.1	0	0	0	0	0						-8.7	0	0	0	0	0						-12.11	0	0	0	0	0	0						-8.7	0	0	0	0	0								
-8.7	0	0	0	0	0	0						-4.3	0	0	0	0	0						-16.9	0	0	0	0	0						-14.13	0	9	0	0	0	0						-16.9	0	0	0	0	0								

282

970

24

82

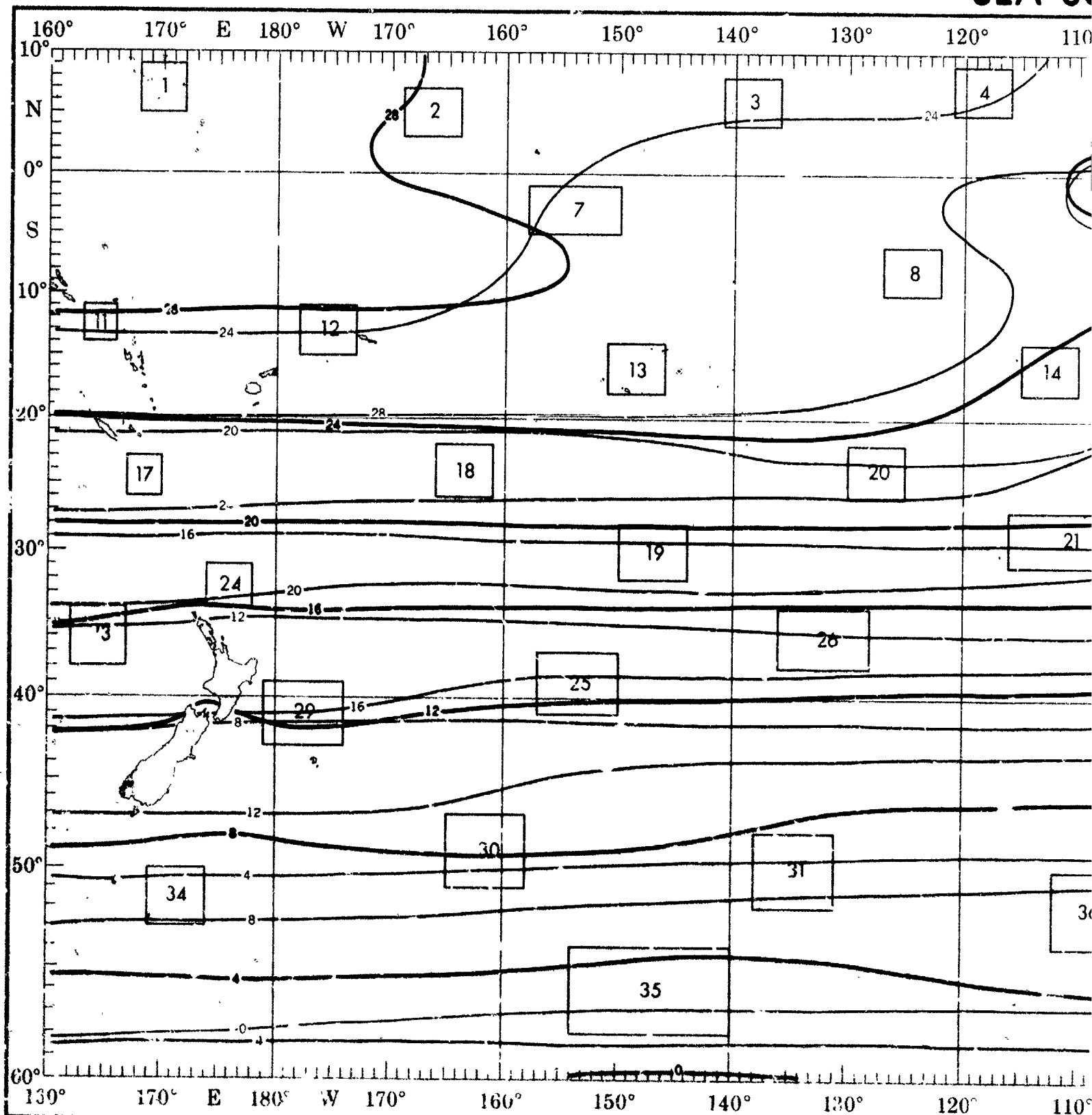
356

1249

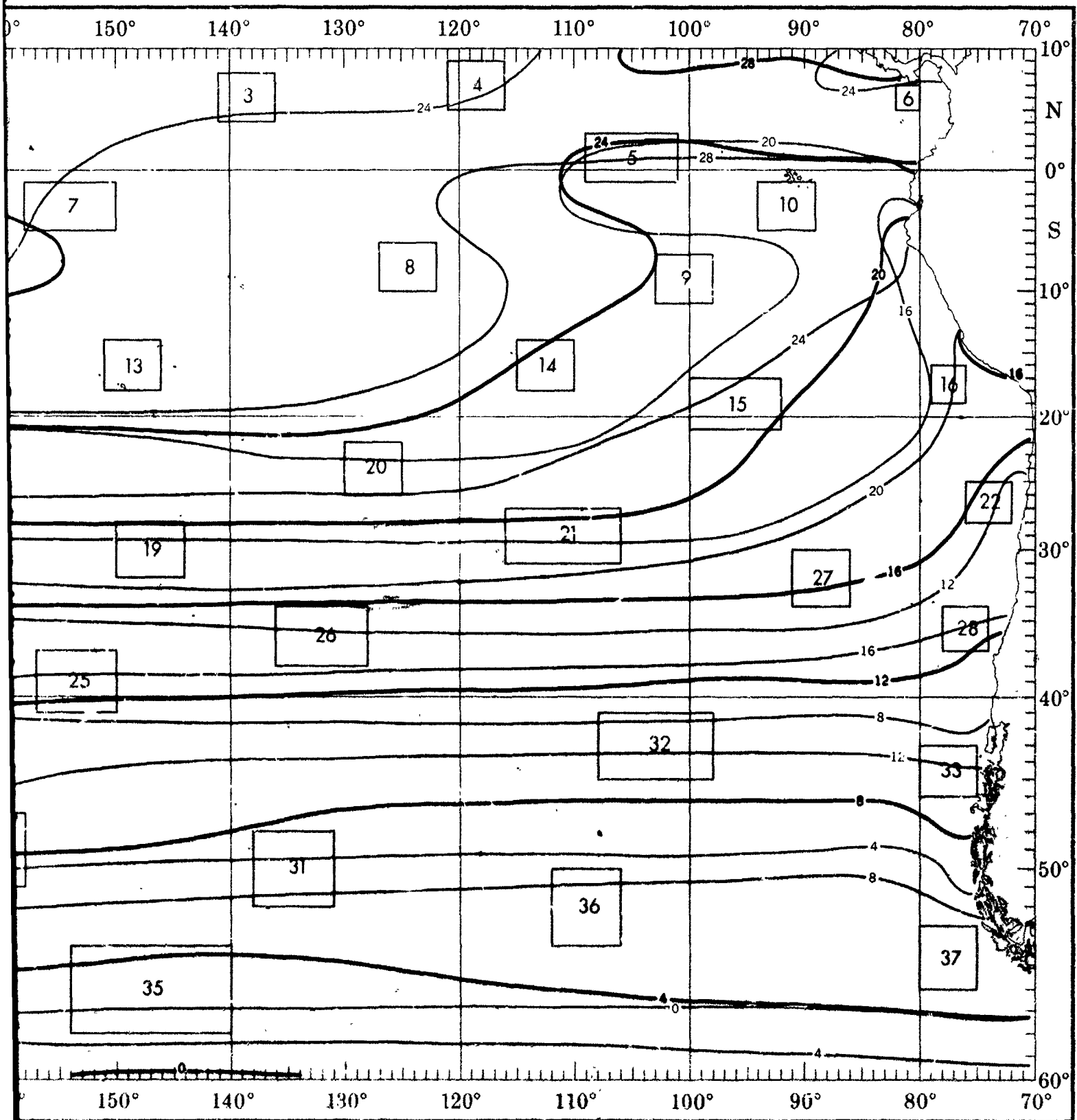
The objective compilation of available data for specified areas without regard to suspected biases. The estimates (opposite page) are based on all available data subjectively adjusted where bias was evident.

JULY

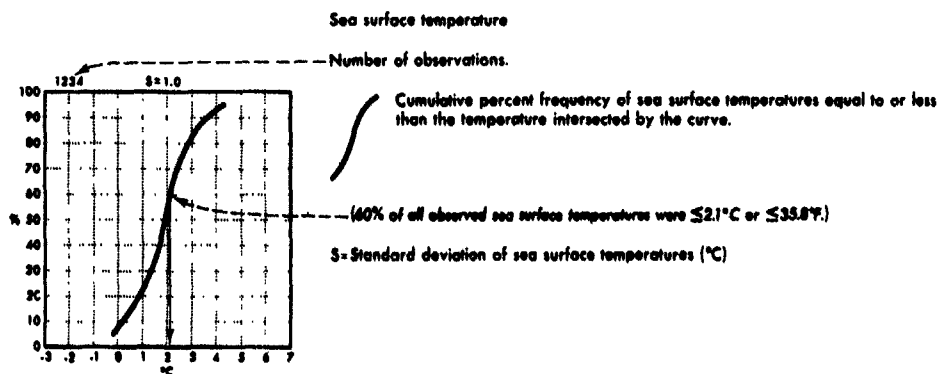
SEA SU



SEA SURFACE TEMPERATURE



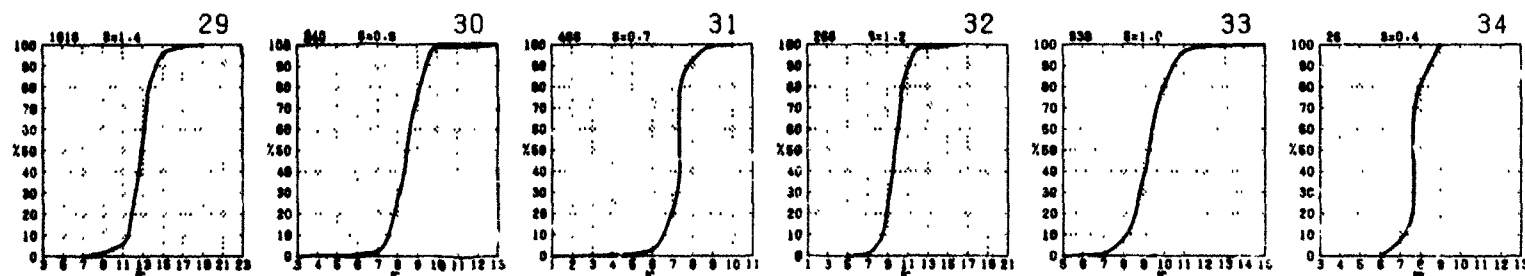
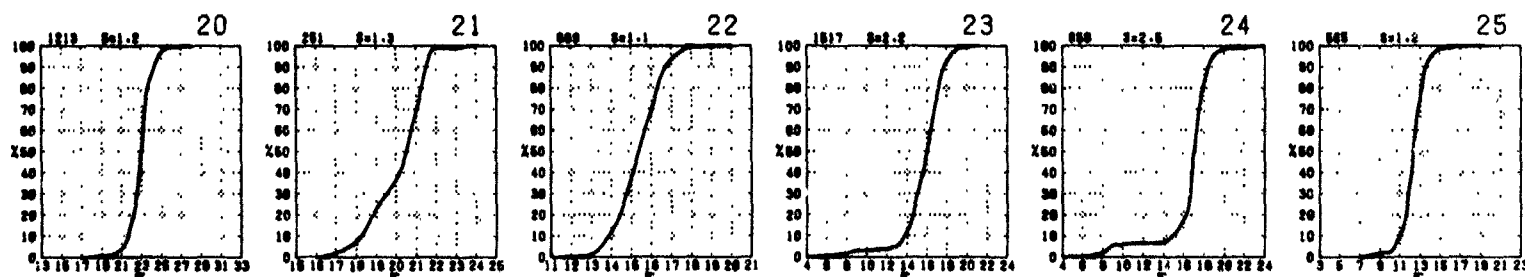
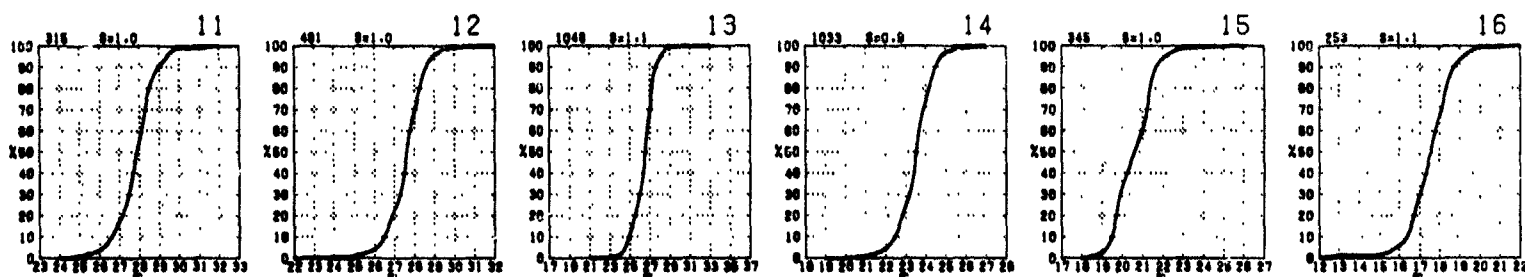
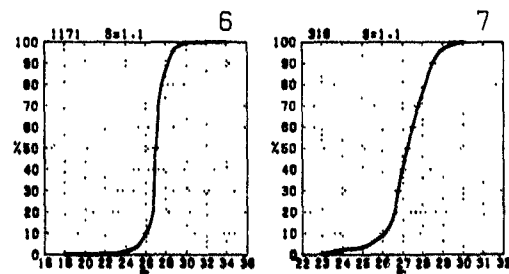
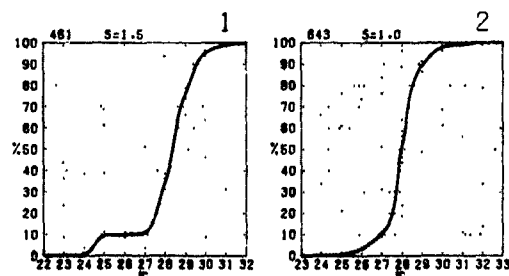
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^\circ\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^\circ\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^\circ\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

ATURE

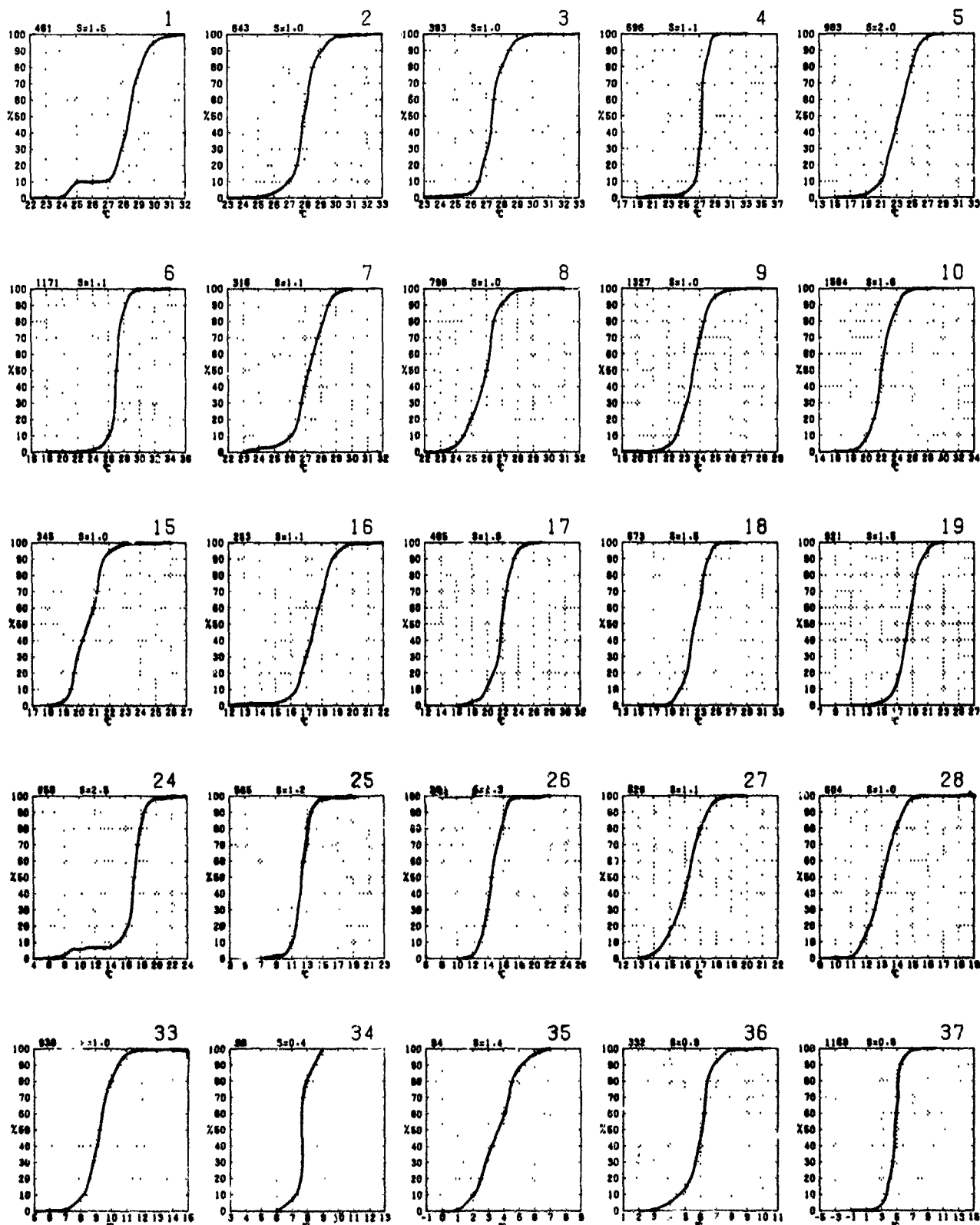
JULY

temperatures equal to or less

or $\leq 35.0^\circ\text{F}$)

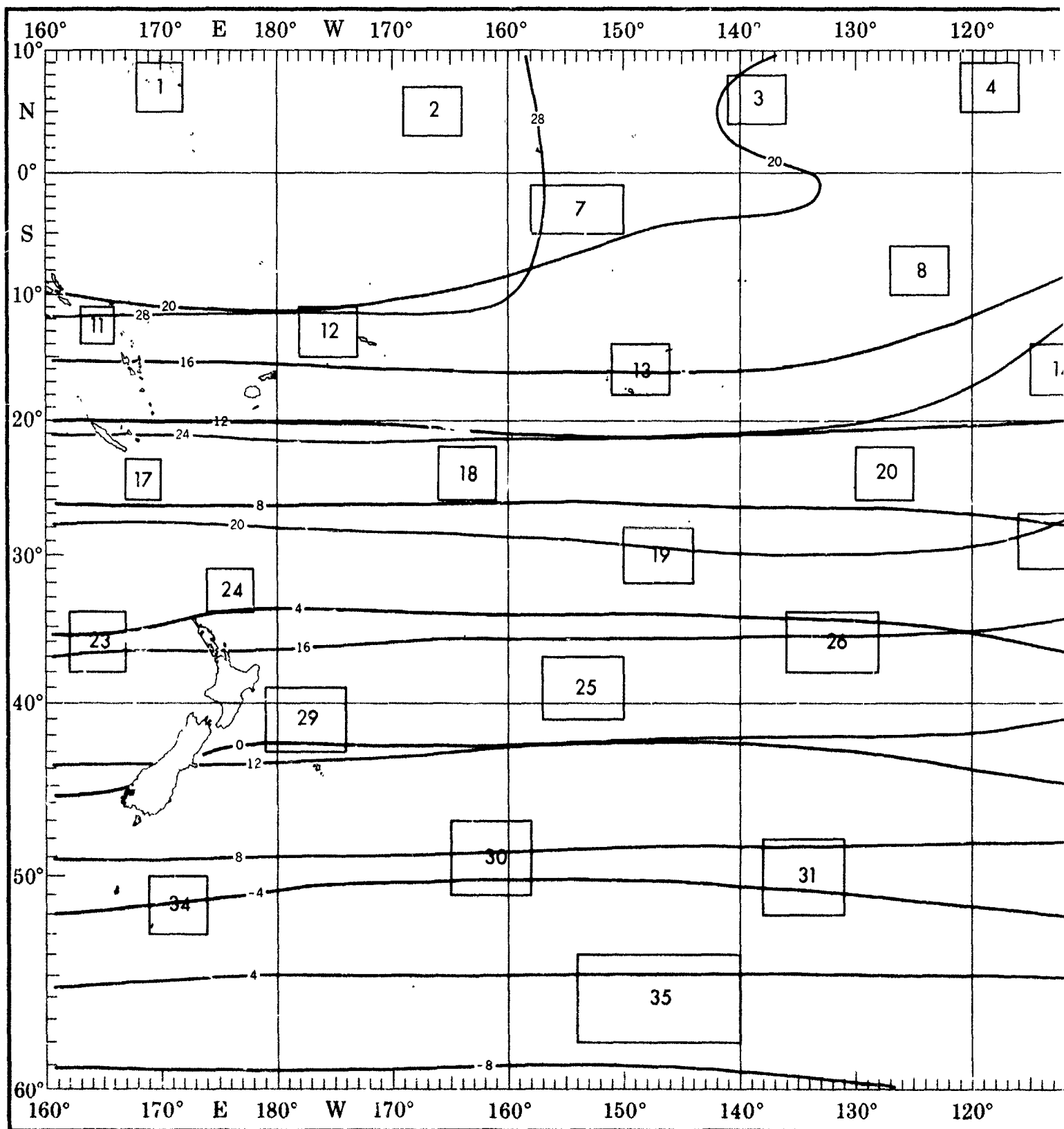
or less than the given

or than the given value)



is objective compilation of available data for specified areas without regard to suspected biases.
 is (opposite page) are based on all available data subjectively adjusted where bias was evident.

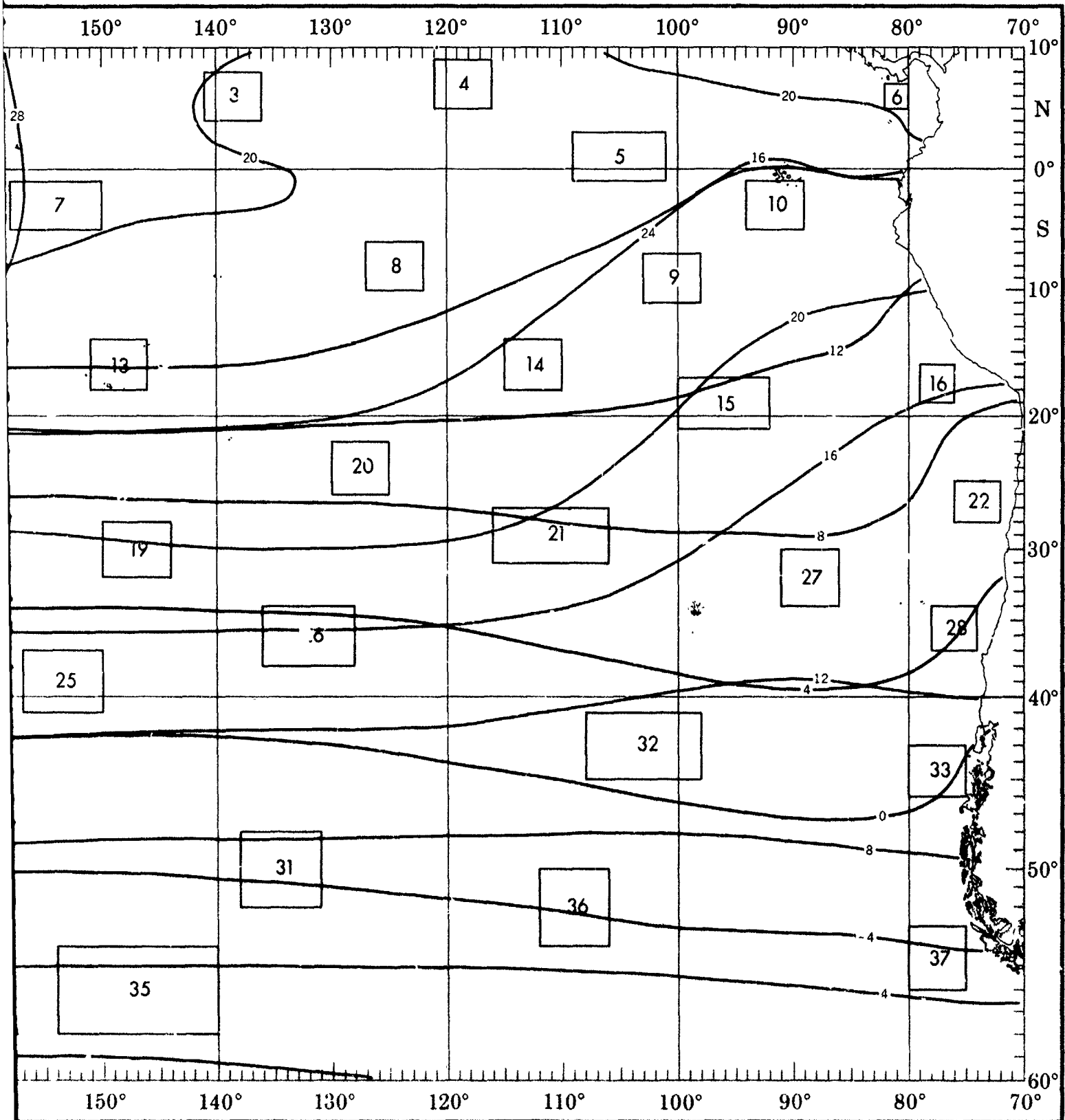
JULY



2

1

HUMIDITY



1

1

2

WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

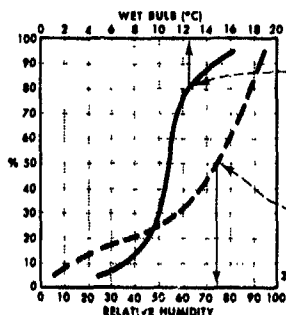
Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale)

— Wet bulb (°C)
 (80% of all observed wet-bulb temperatures were $\leq 12.5^\circ\text{C}$ or 54.5°F .)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale)

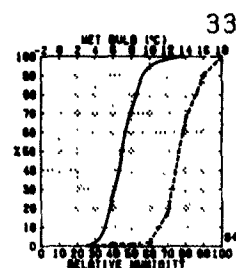
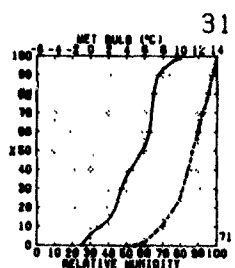
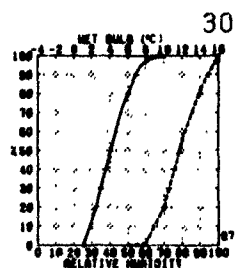
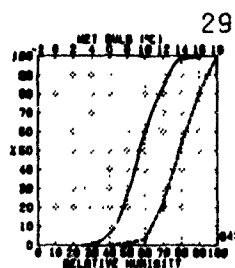
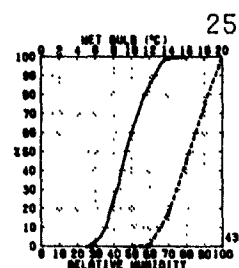
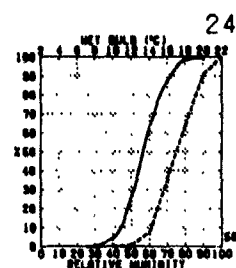
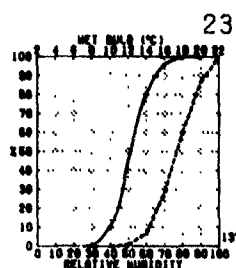
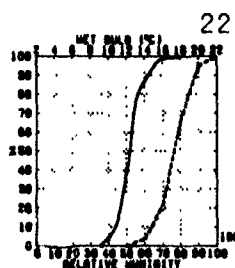
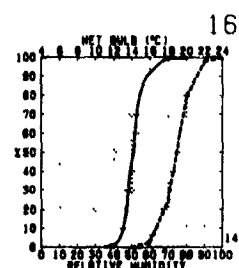
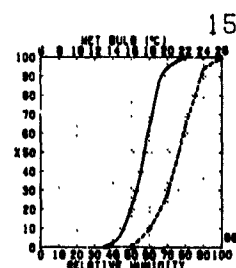
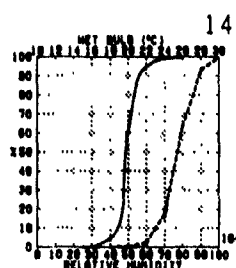
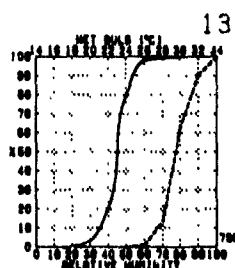
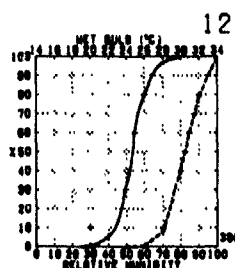
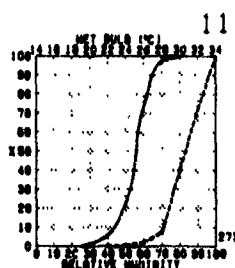
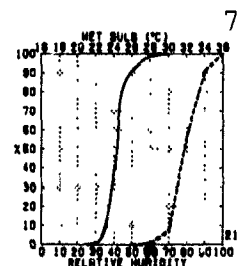
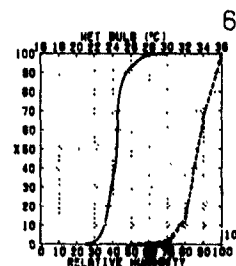
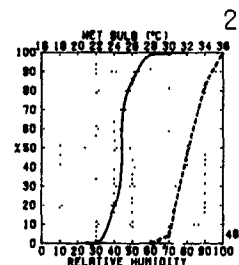
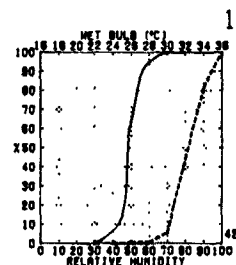
— Relative humidity (%)
 (50% of all observed relative humidities were $\leq 74\%$)

Number of observations.



BLUE LINE Minimum (1%) dew-point temperature ($^\circ\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE Maximum (99%) dew-point temperature ($^\circ\text{C}$) (1% of the computed values were greater than the given value)



INSUFFICIENT
DATA

INSUFFICIENT
DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

VE HUMIDITY

JULY

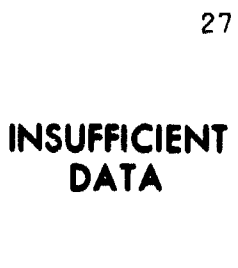
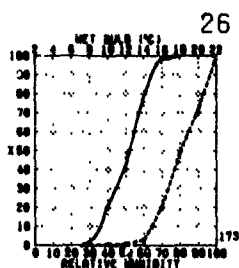
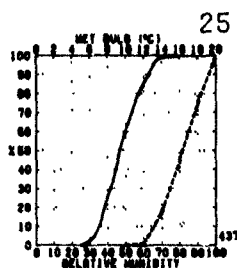
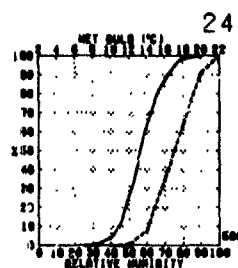
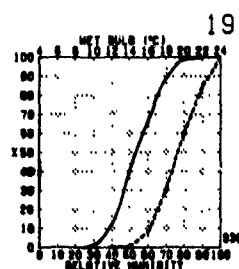
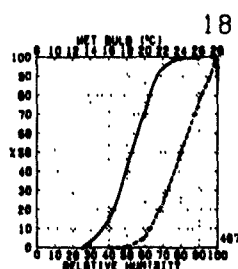
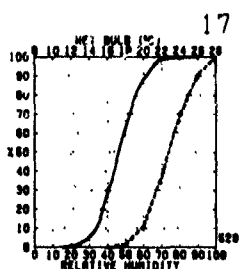
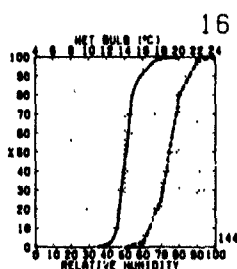
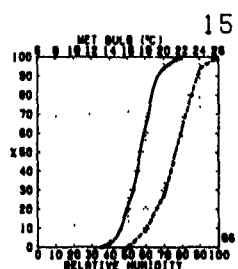
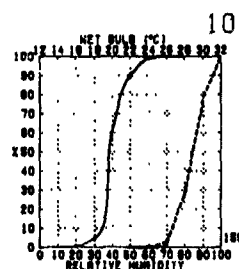
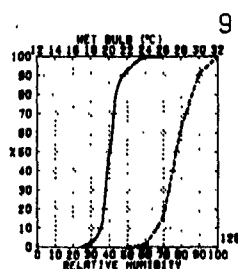
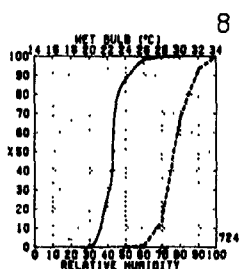
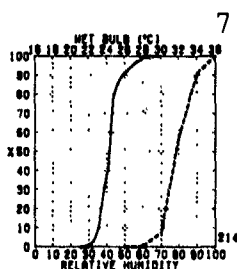
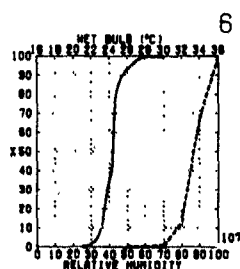
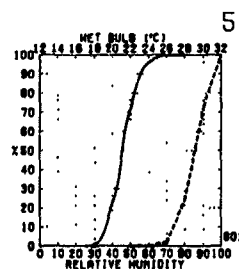
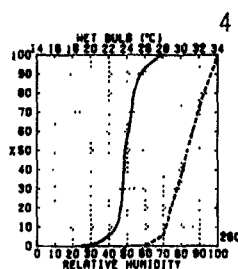
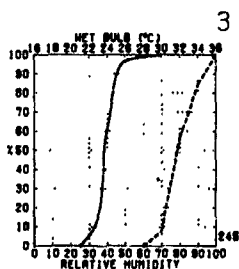
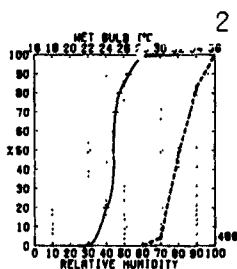
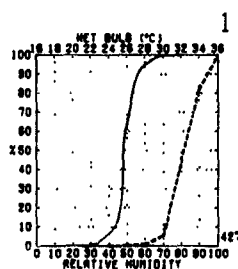
al to or less than the

5°F)

or less than the humidity

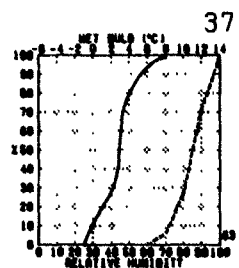
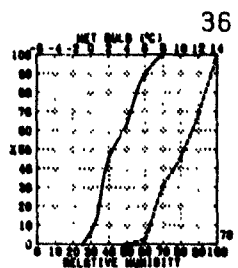
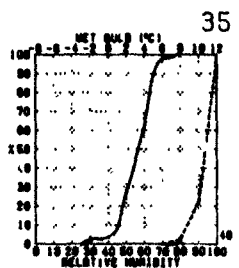
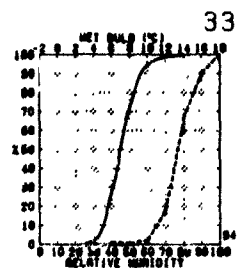
or less than the given

than the given value)



INSUFFICIENT
DATA

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DATA

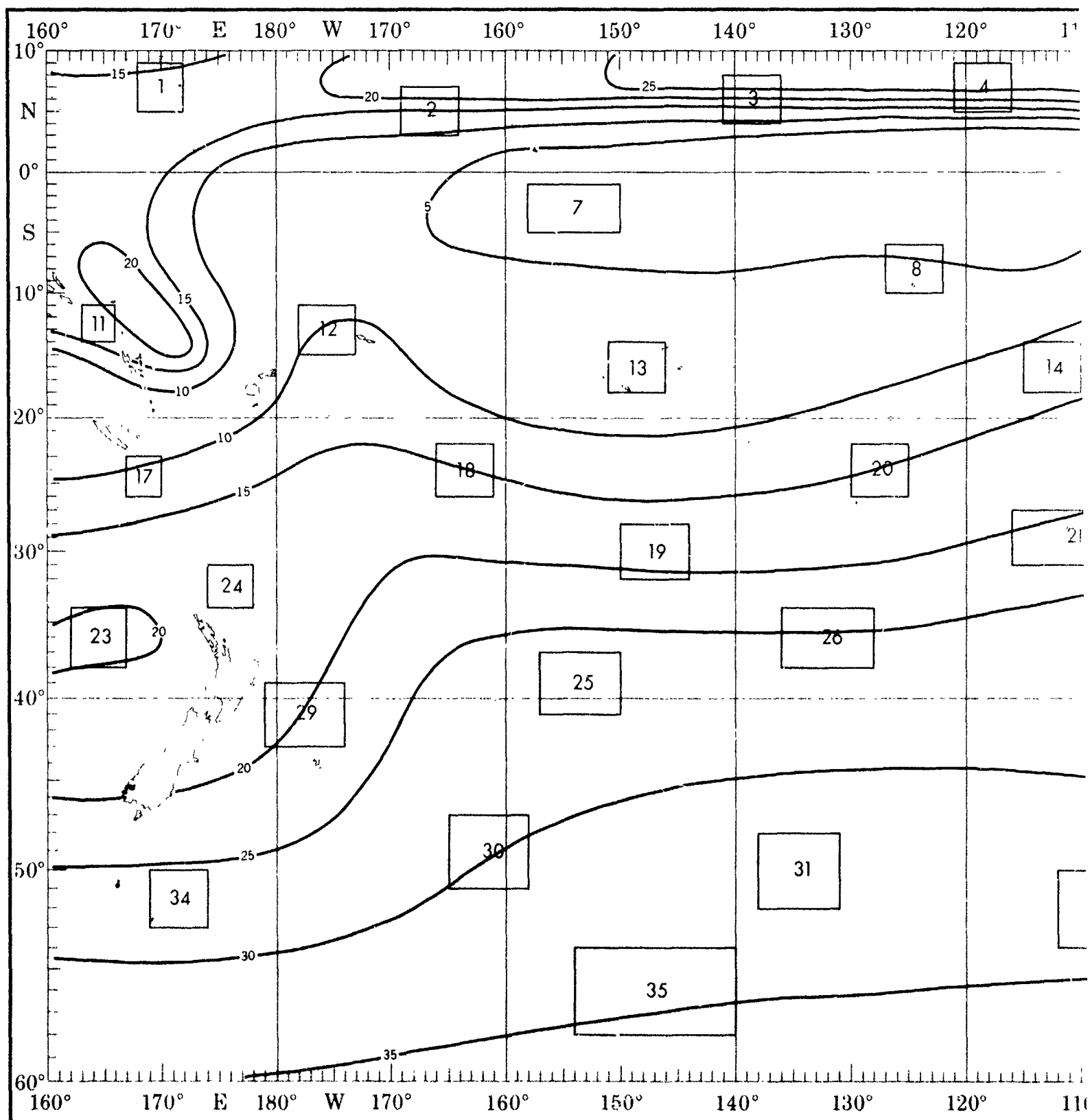


INSUFFICIENT
DATA

INSUFFICIENT
DATA

objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

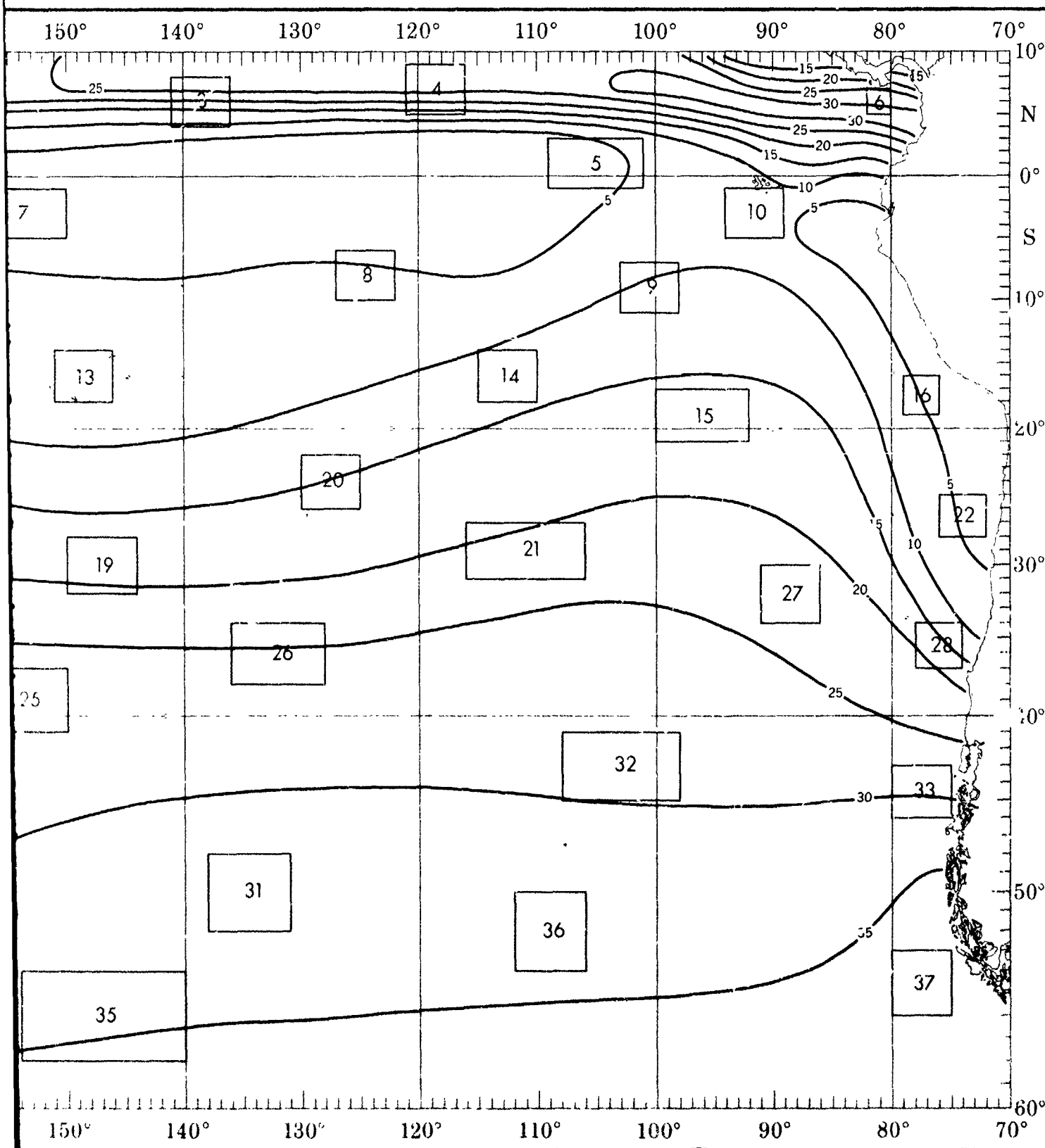
JULY



1

1

PRECIPITATION



1

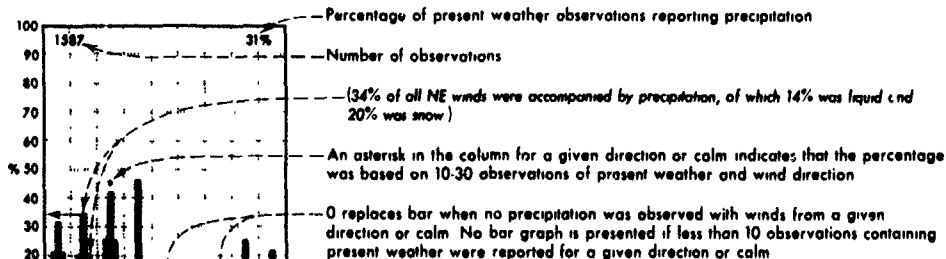
1

2

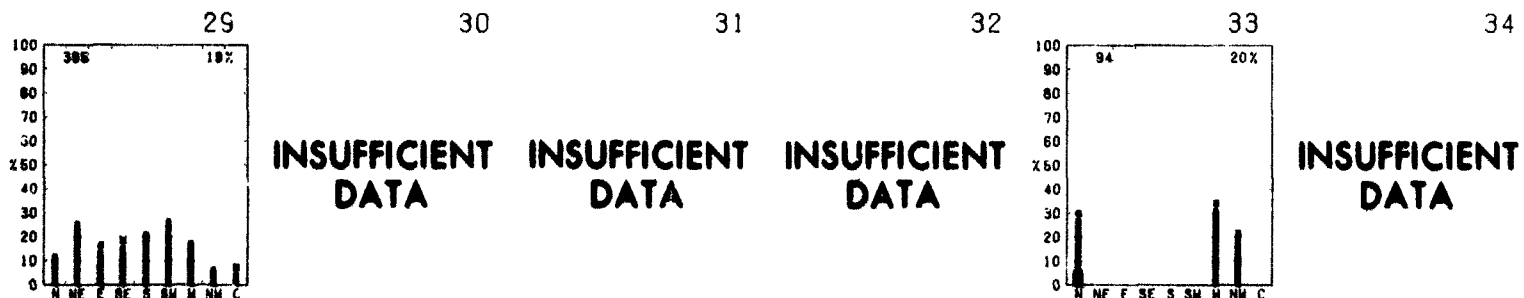
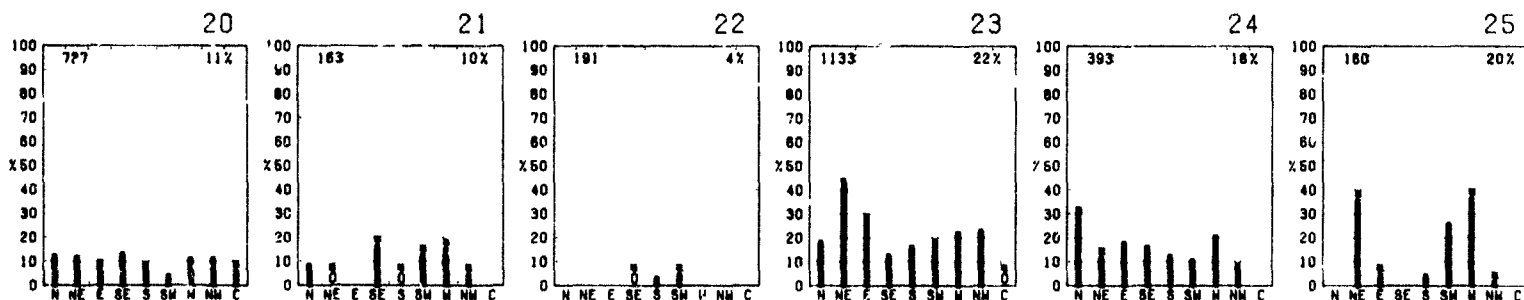
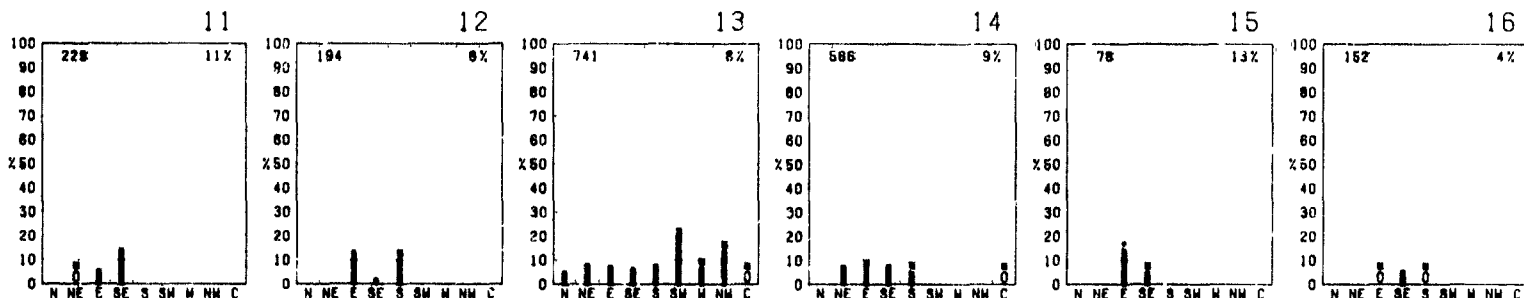
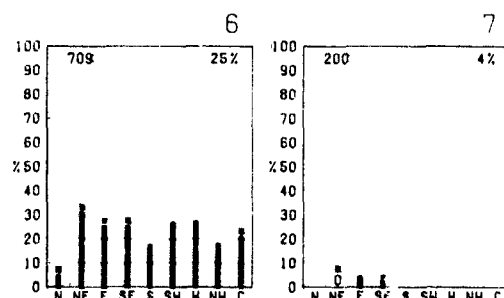
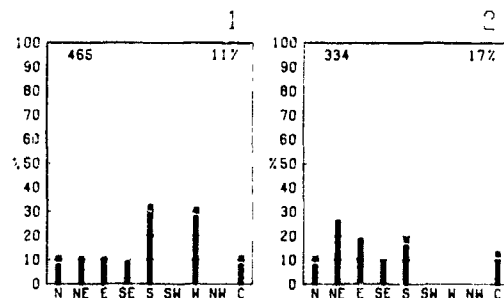
PRECIPITATION

% Pcpn % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted when

JULY

and calm that were
freezing rain and freezing

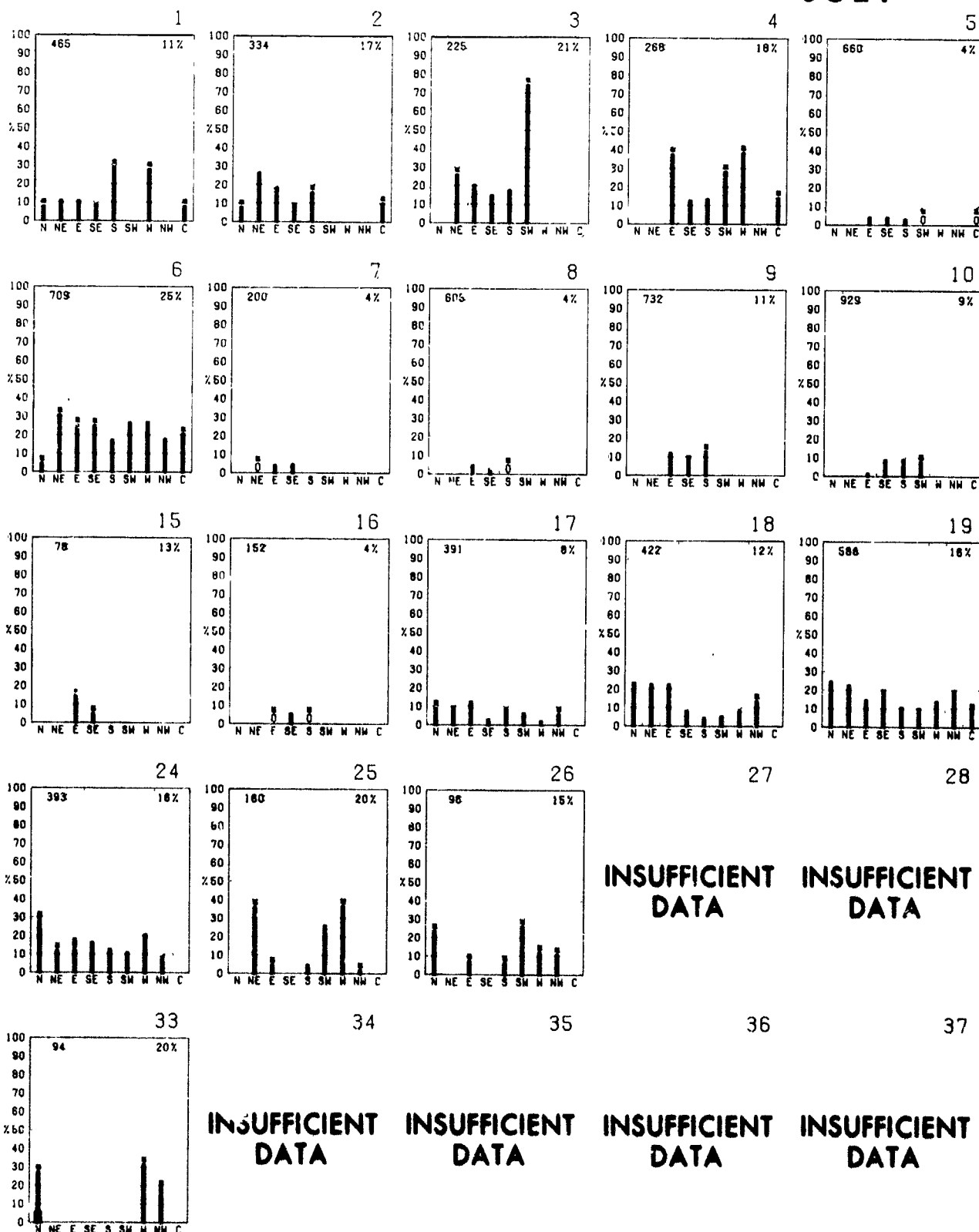
precipitation

which 14% was liquid and

indicates that the percentage
wind direction

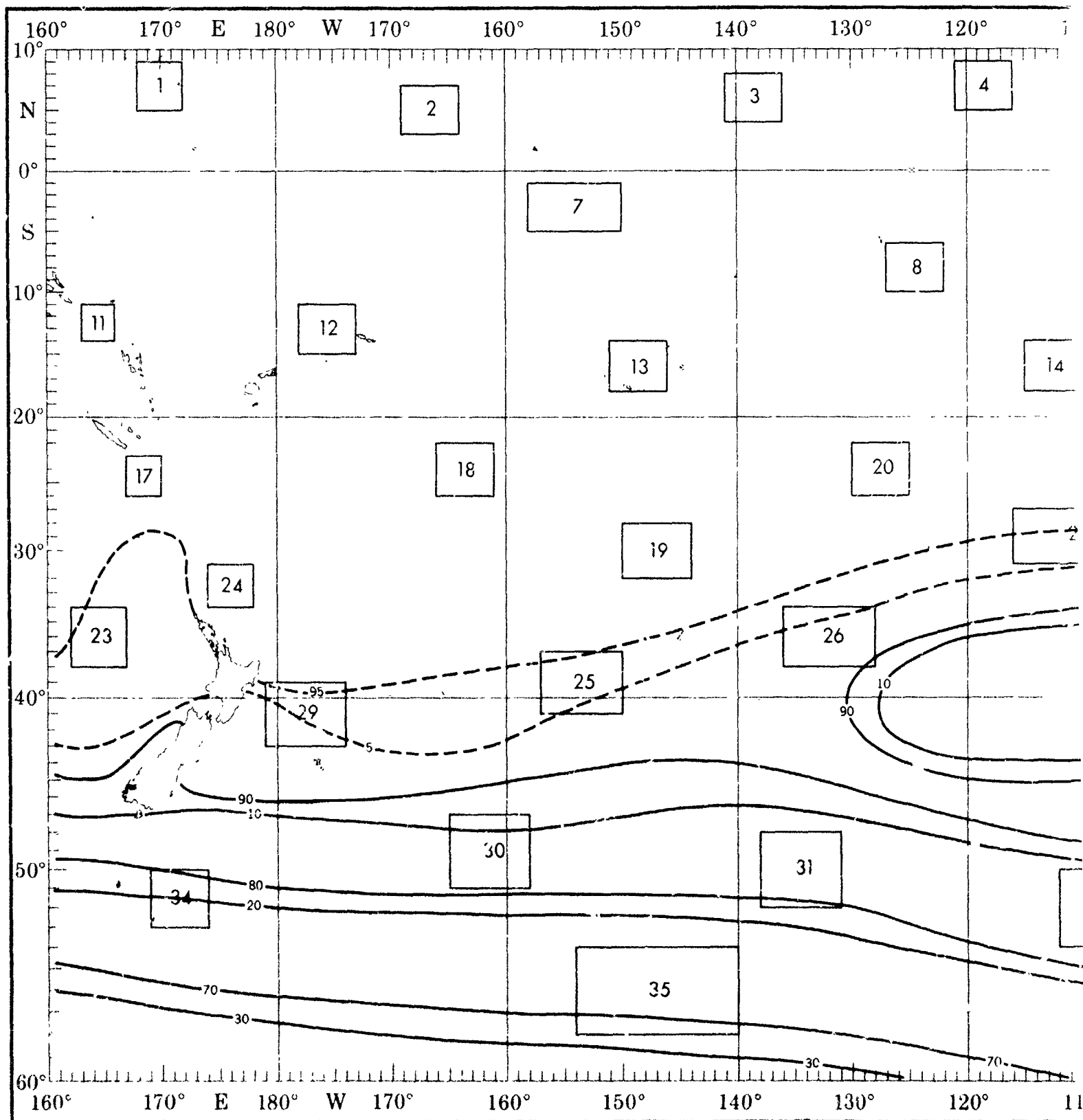
ends from a given
0 observations containing

m

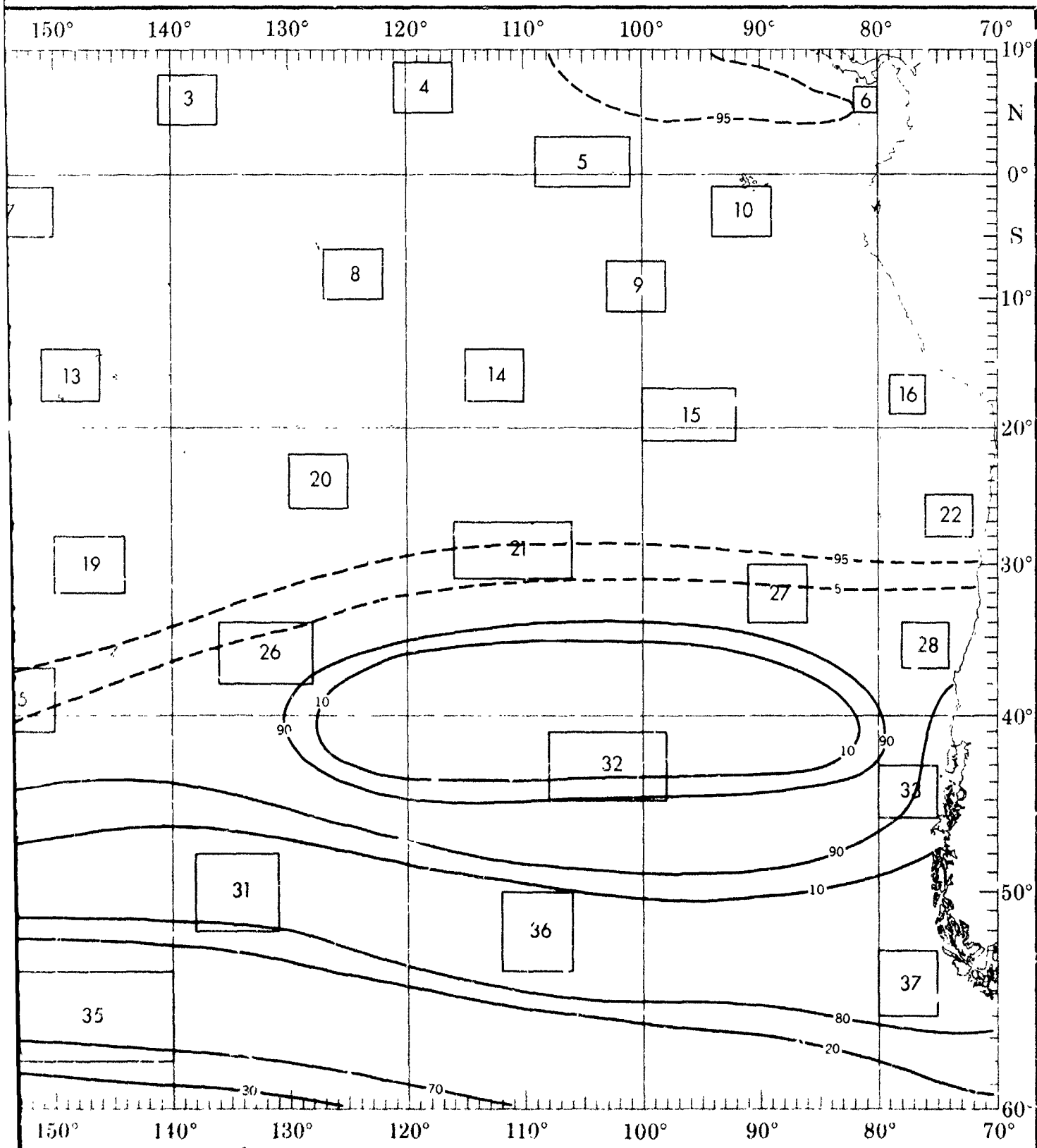


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

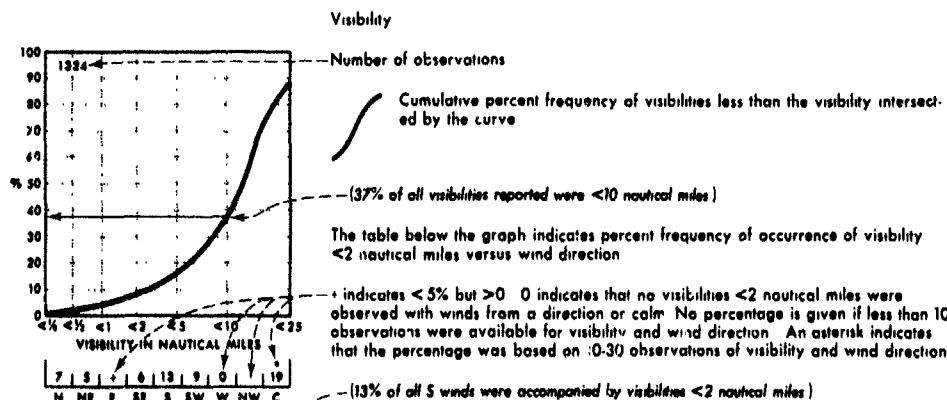
JULY



VISIBILITY

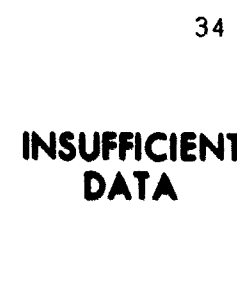
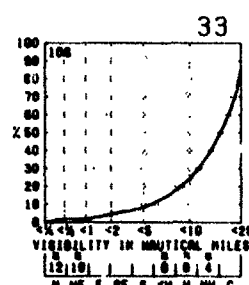
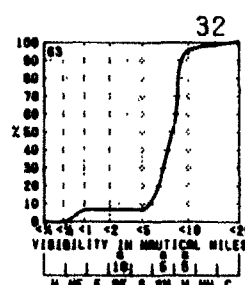
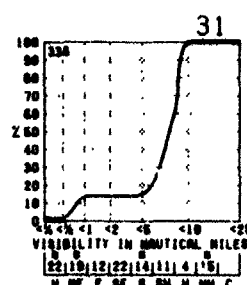
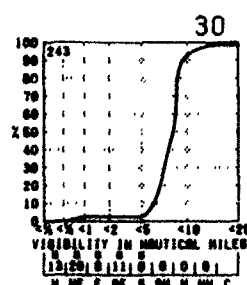
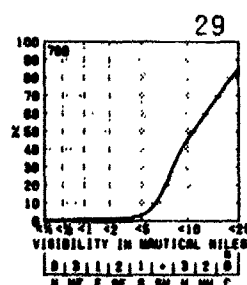
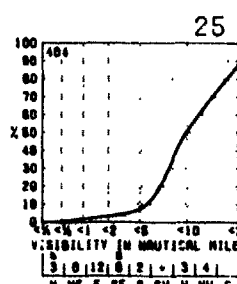
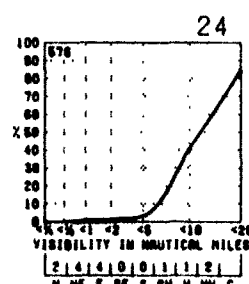
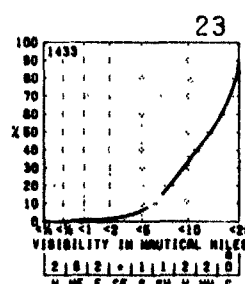
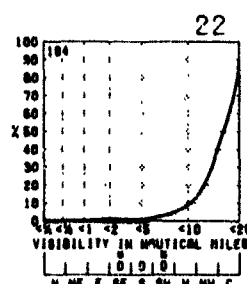
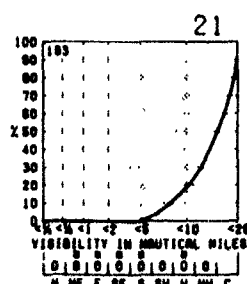
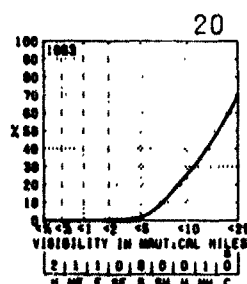
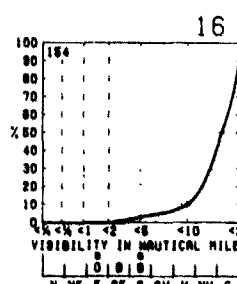
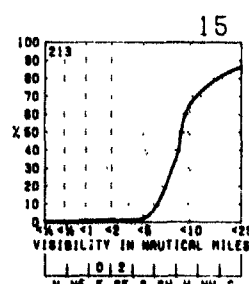
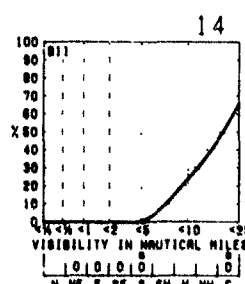
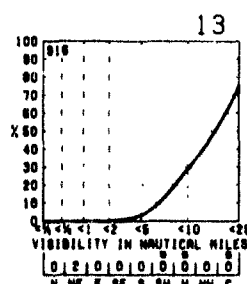
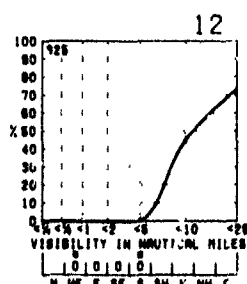
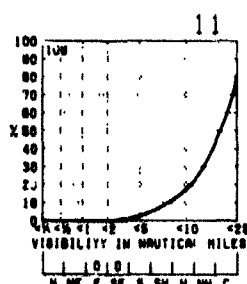
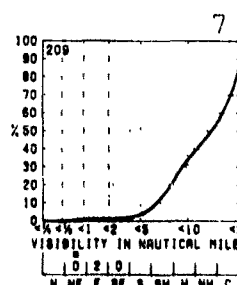
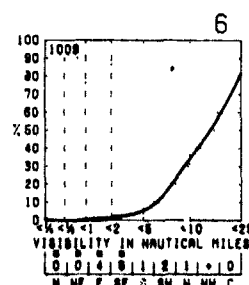
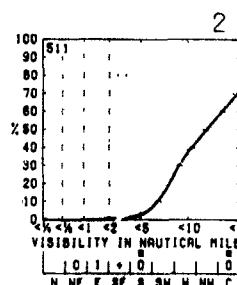
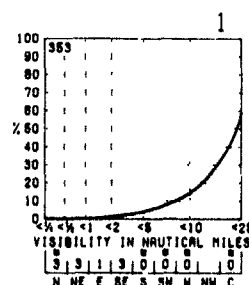


VISIBILITY



BLUE LINE - Percent frequency of visibilities <5 nautical miles

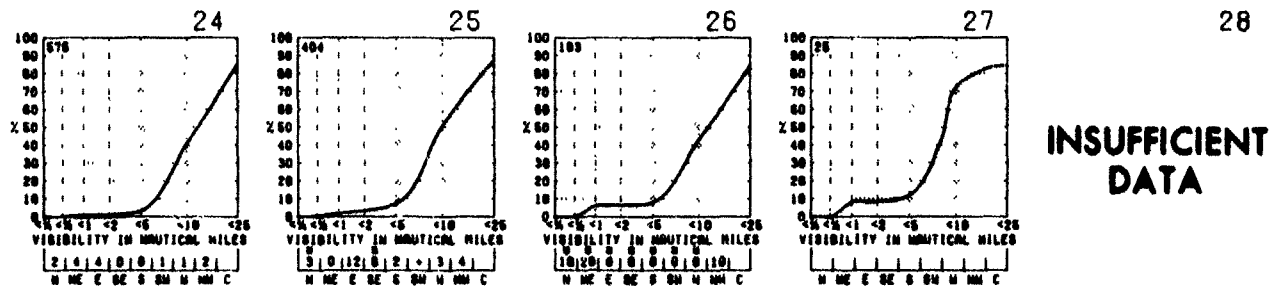
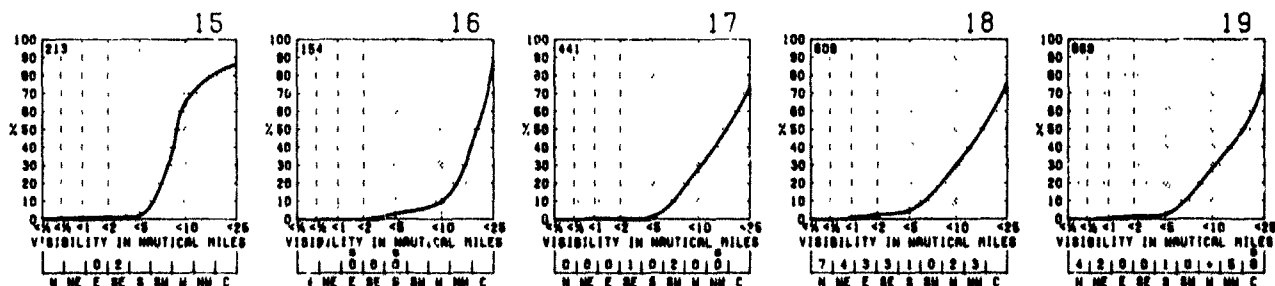
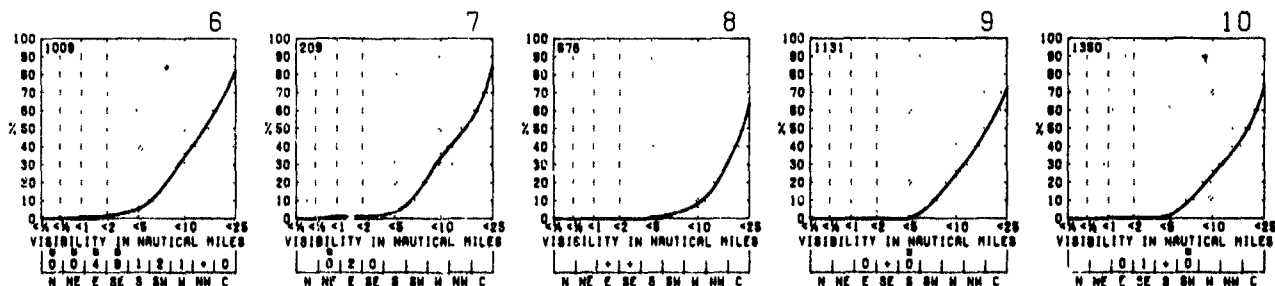
RED LINE - Percent frequency of visibilities <2 nautical miles



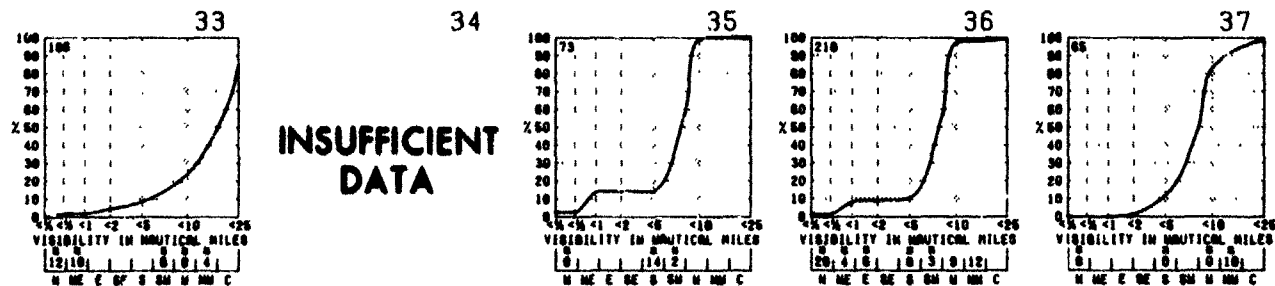
INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

INSUFFICIENT DATA



INSUFFICIENT DATA

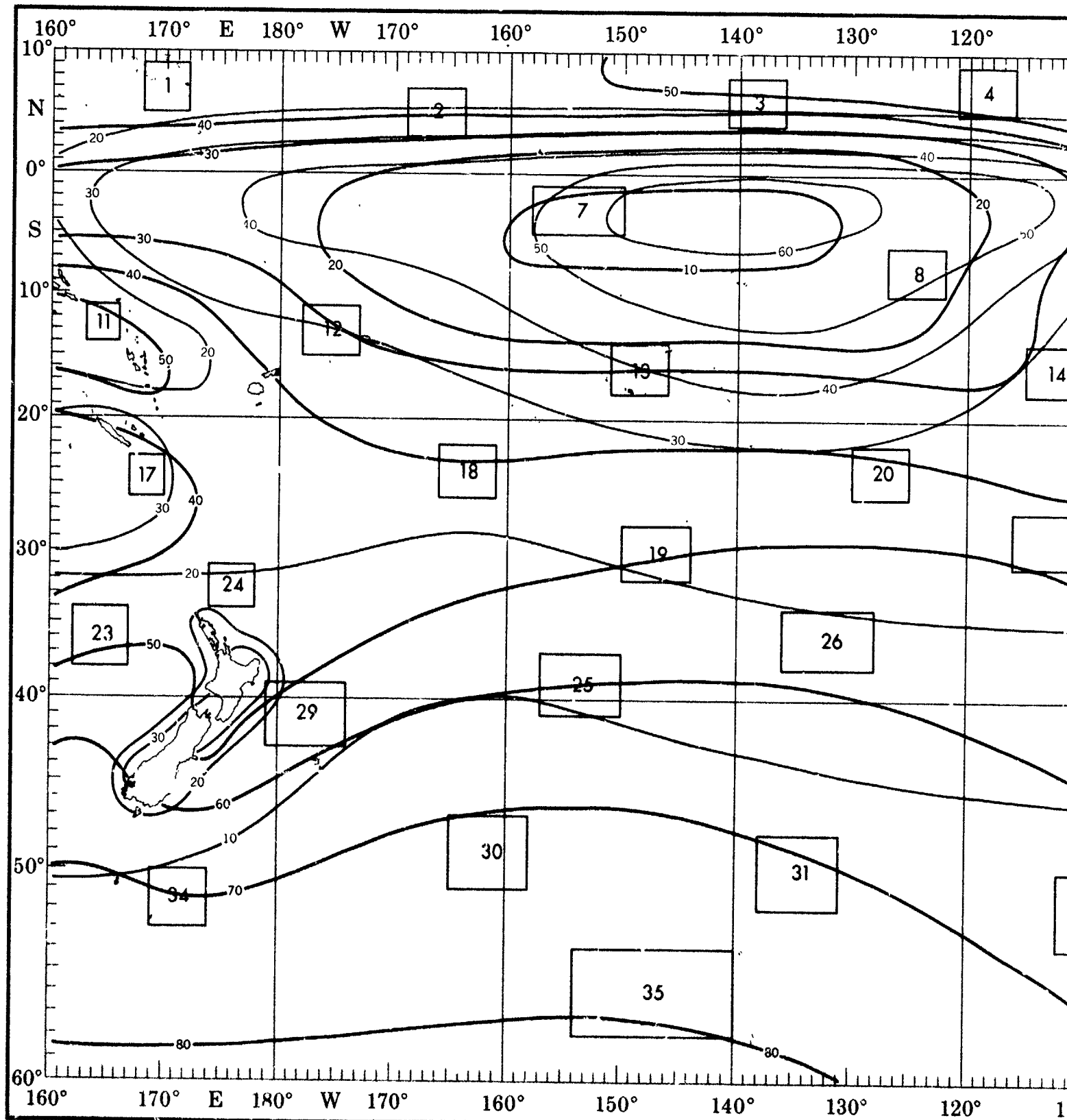


INSUFFICIENT DATA

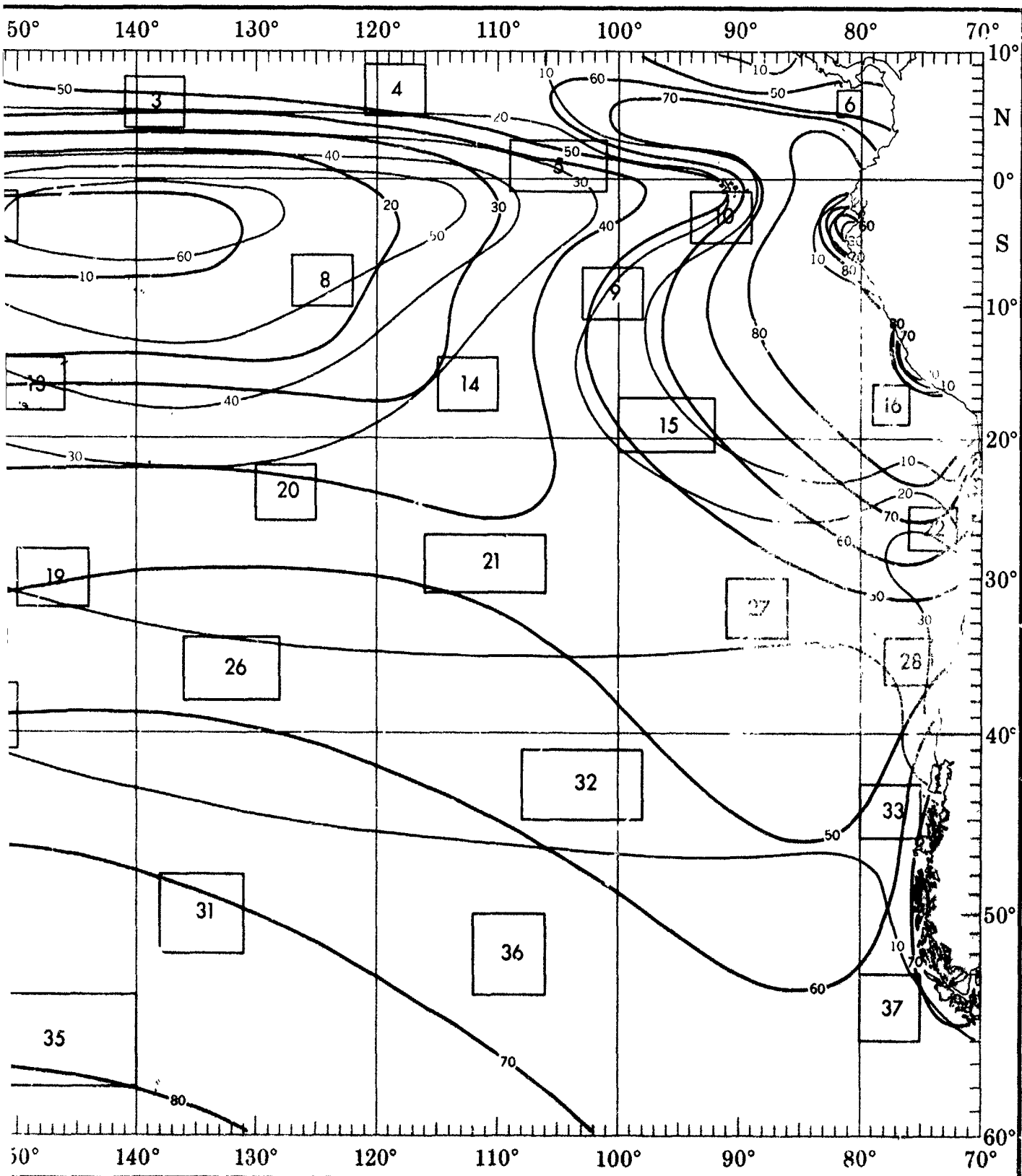
cal miles)

183

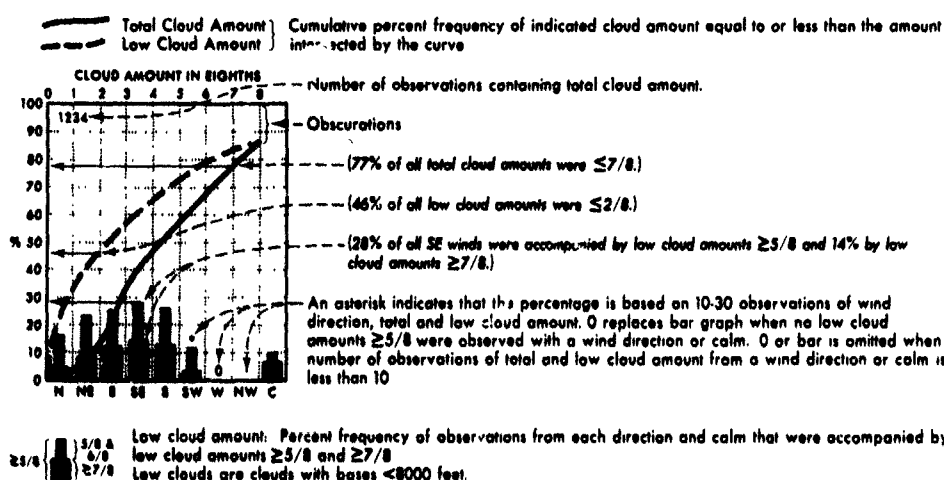
JULY



CLOUD COVER

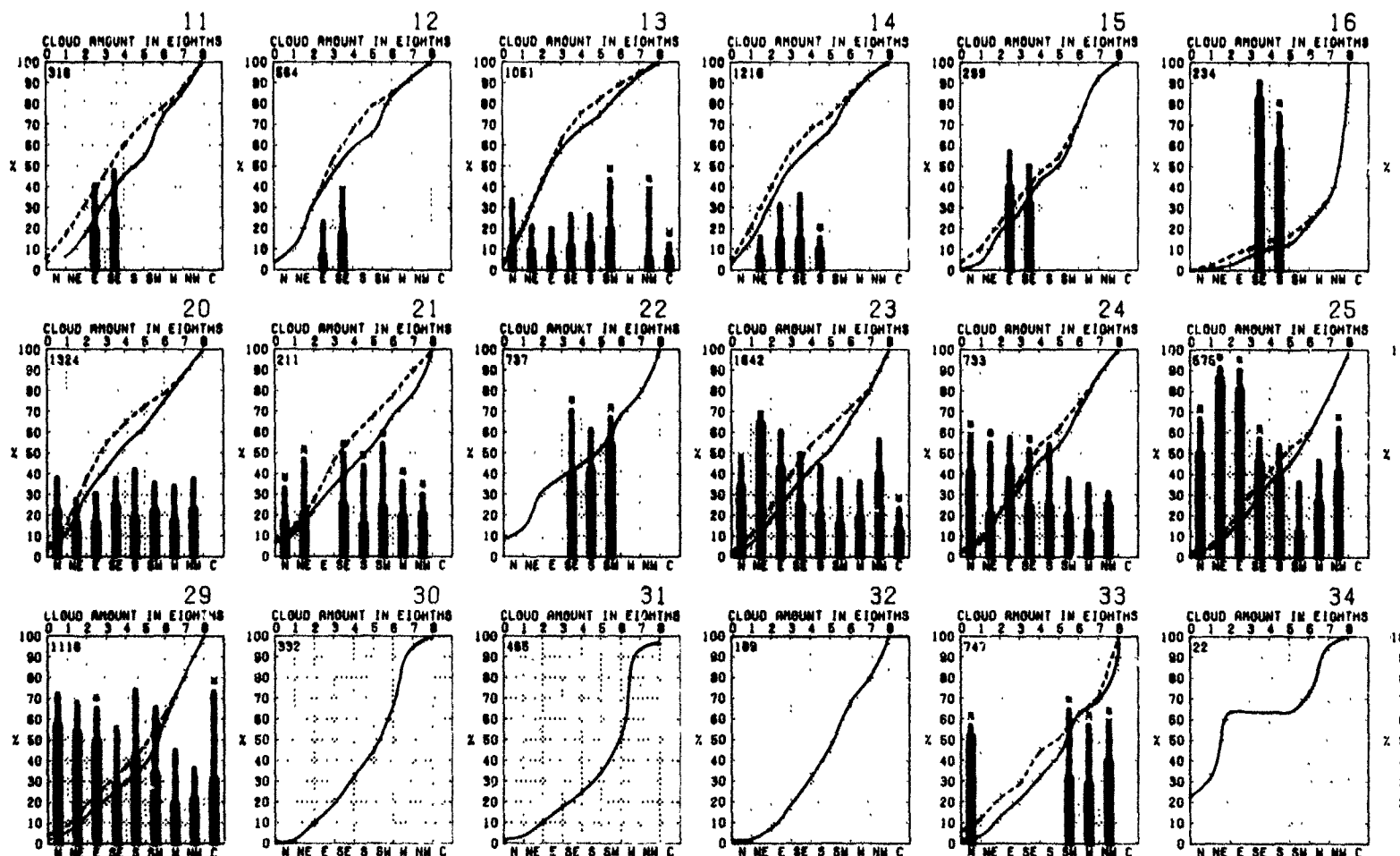


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 5/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

JULY

al to or less than the amount

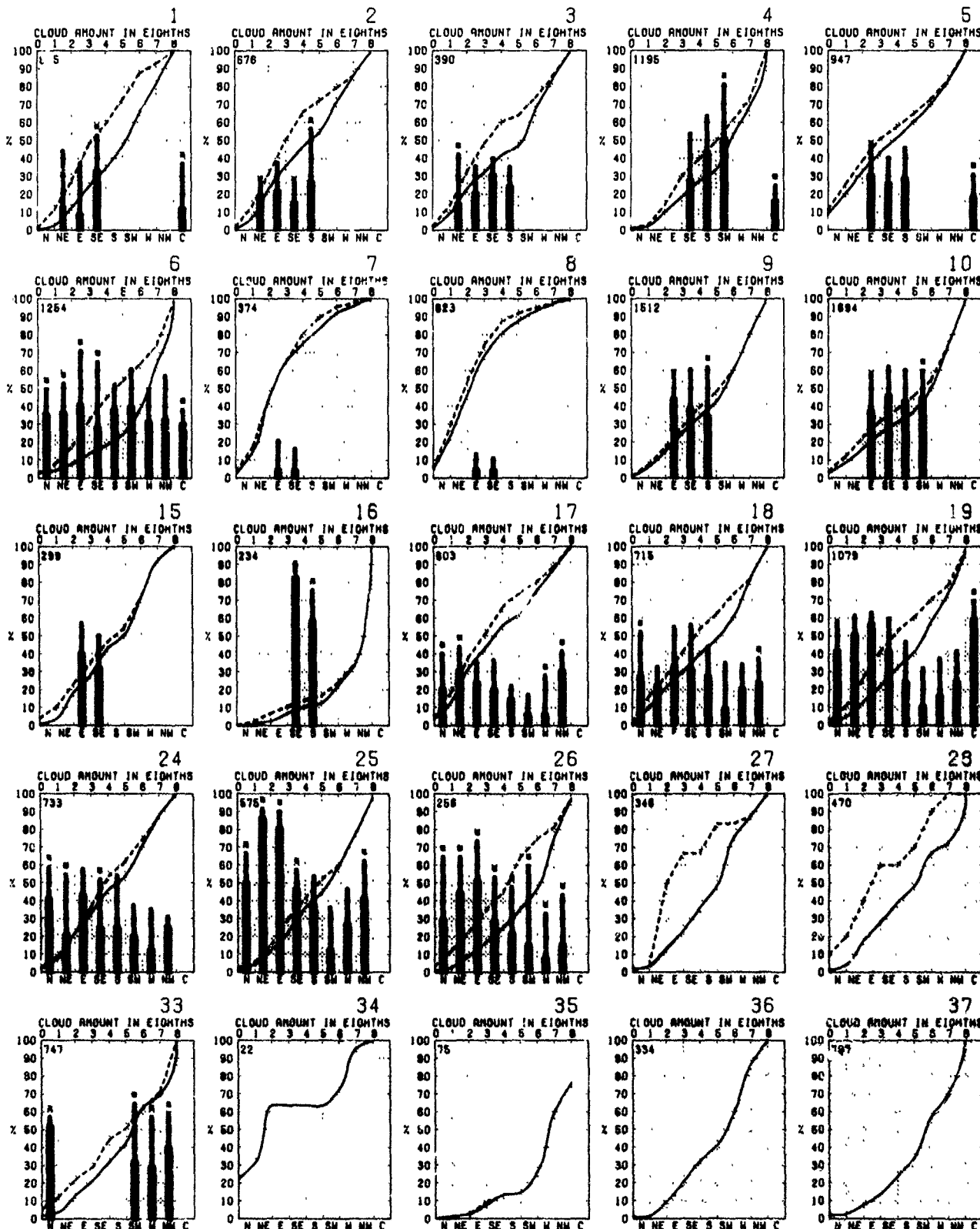
ms $\geq 5/8$ and 14% by low

observations of wind
when no low cloud
h 0 or bar is omitted when
a wind direction or calm is

h that were accompanied by

MS

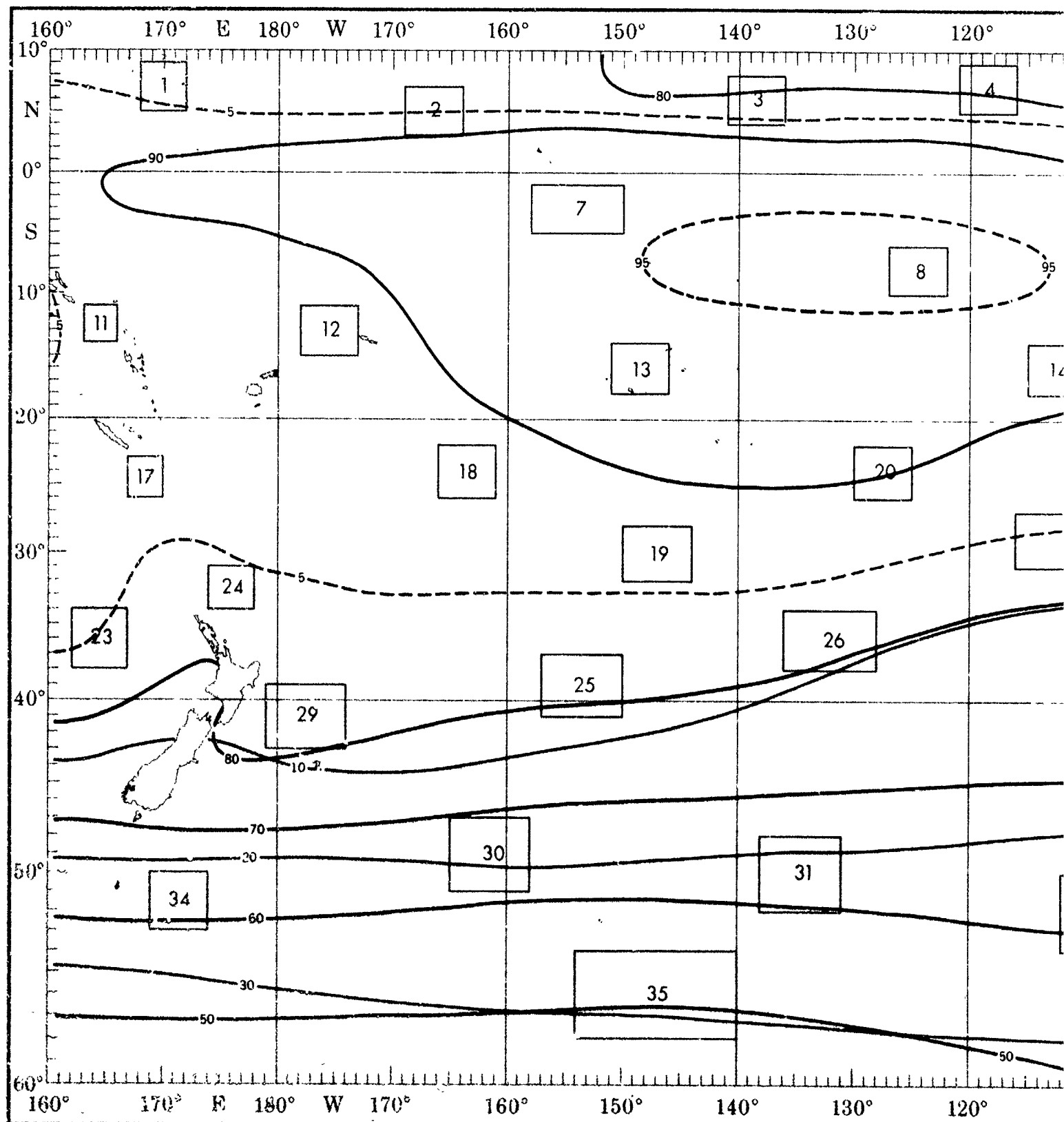
MS



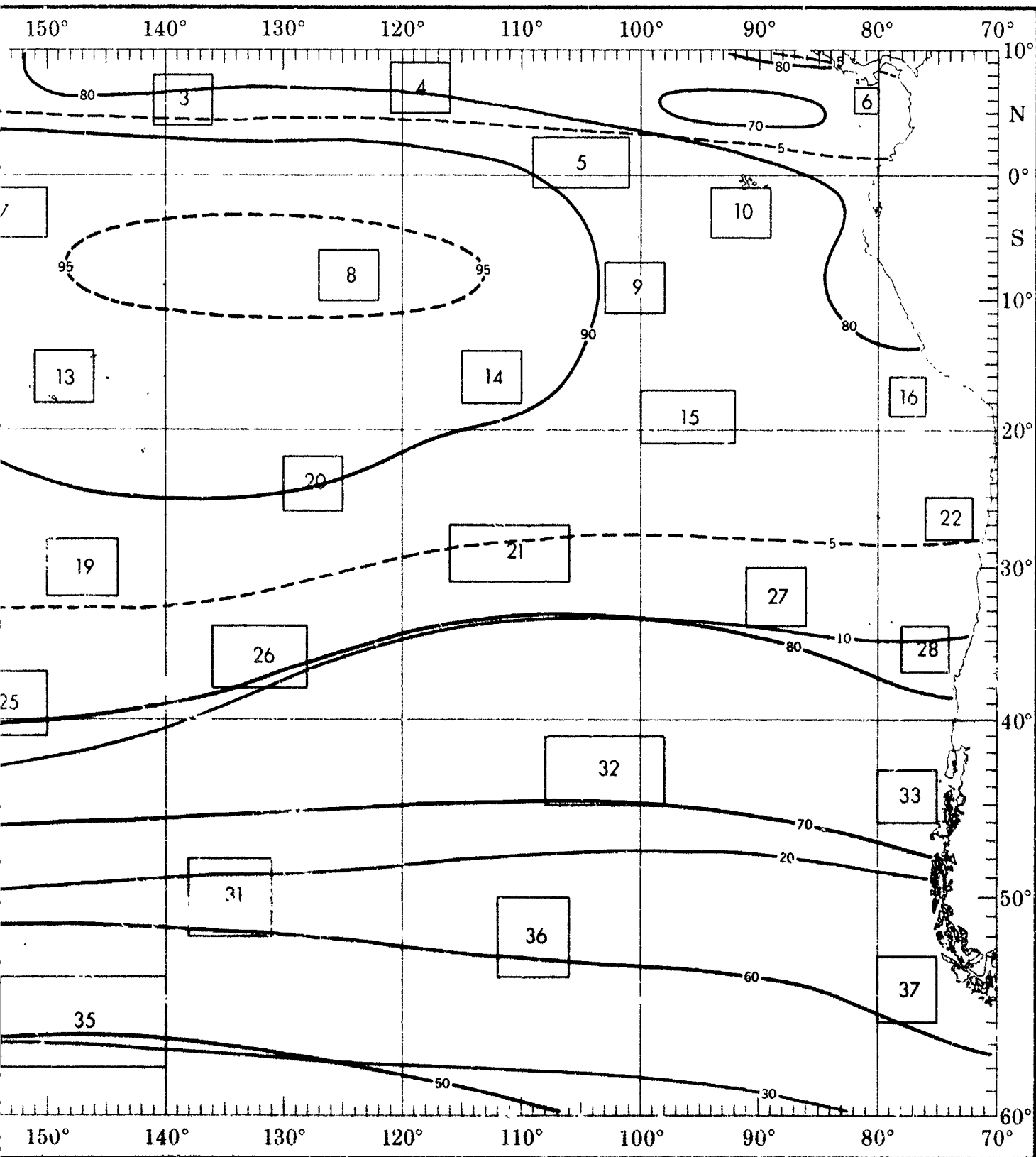
the objective compilation of available data for specified areas without regard to suspected biases.

ms (opposite page) are based on all available data subjectively adjusted where bias was evident.

JULY



CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

Obscurements are included under ceiling "0 <1.5"

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

--- (2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

..+ indicates $< 5\%$ but > 0

- Number of observations

		VISIBILITY							
		<1	1-2	2-3	3-4	4-5	5-10	≥10	
LOW CLOUD CEILING	MC	0	0	+	3	13	64		
	30-50	0	0	0	0	+	1		
	25-30	0	+	0	0	0	4		
	20-25	0	+	1	1	2	2		
	10-20	0	+	1	1	2	1		
	6-10	0	1	0	+	+	0		
	3-6	+	+	0	0	+	0		
	1-5	+	0	0	0	0	0		
	0-1.5	+							

		VISIBILITY					
		1/2	2/3	1/2	2/5	1/10	0
MC		0	0	0	1	4	57
50<80	0	0	0	0	0	0	0
35<80	0	0	0	0	0	1	1
20<35	0	0	0	0	+	+	5
10<20	0	0	0	0	+	1	9
5<10	0	0	0	+	0	2	14
5<5	0	0	0	0	0	+	1
1<5	0	0	0	0	0	0	0
0<1	+	0	0	0	0	1	0

		VISIBILITY				
		<1/4	1/4-1/2	1/2	2-6	>6
LOW CLOUD CEILING	NC	0	0	0	0	1
	50-99	0	0	0	0	0
	99-999	0	0	0	0	0
	20-999	0	0	0	0	0
	10-20	0	0	0	1	0
	5-10	0	0	0	1	0
	3-5	0	0	0	1	0
	1.5-3	0	0	0	0	1
0-1.5	0	0	0	0	0	

	VISIBILITY					
	<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	0
NC	0	+	0	1	4	42
50-80	0	0	0	0	+	1
30-50	0	0	+	+	1	2
20-30	0	0	0	0	2	7
10-20	0	0	0	1	4	18
0-10	0	0	1	1	4	10
0-5	0	+	+	1	2	1
1-0-2	0	0	0	1	+	+
0-1-5	0	0	0	0	+	0

		VISIBILITY				
		<1/2	1/2-1	1-2	2-5	5+
LOW CLOUD CEILING	NC	0	0	0	4	0
	00-00	0	0	0	0	0
	30-50	0	0	0	0	0
	70-90	0	0	0	0	0
	100-99	0	0	0	0	2
	0-10	0	1	0	0	0
	3-6	0	0	0	0	0
	1-0-0	0	0	0	0	0
0-1-0	0	0	0	0	1	

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE Percent frequency of low cloud ceiling <600 feet and/or visibility <2 nautical miles

		VISIBILITY							11
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	NC	0	0	0	0	1	50		
	00-00	0	0	0	0	0	0		
	00-00	0	0	0	0	0	1		
	00-00	0	0	0	1	3	1		
	00-00	0	0	0	0	3	10		
	00-00	0	0	0	1	4	17		
	00-00	0	0	0	1	0	1		
	00-00	0	0	0	0	0	0		
00-00	0	0	0	0	0	0			

		VISIBILITY							12
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-1 1/2	1 1/2-2	>2	
LOW CLOUD CEILING	MC	0	0	0	0	4	84		
	99-70	0	0	0	0	0	0		
	99-5	0	0	0	0	0	1		
	99-30	0	0	0	0	1	3		
	99-10	0	0	0	0	4	8		
	9-10	0	0	0	0	1	9		
	9-5	0	0	0	0	2	1		
	9-30	0	0	0	0	0	0		
	9-1-5	0	0	0	1	0	1		

		13 VISIBILITY						
		<1/2	1/2-1	1-2	2-5	5-10	>10	
LOW CLOUD CELLING	MC	0	0	0	1	6	88	
	00-00	0	0	+	0	0	0	
	00-00	0	0	0	0	+	1	
	00-00	0	0	0	+	2	3	
	00-00	0	0	0	1	5	7	
	0-10	0	0	+	+	1	3	
	0-00	0	0	0	0	0	1	
	1-0-00	0	0	0	+	0	0	
0-1-0	0	0	0	+	0	0		

		VISIBILITY							14
		1/8	1/4	1/2	3/4	1	1 1/2	2	
LOW CLOUD CEILING	MC	0	0	0	0	0	2	85	
	00-00	0	0	0	0	0	1		
	00-00	0	0	0	0	0	3		
	00-00	0	0	0	0	1	5		
	00-00	0	0	0	0	1	14		
	00-00	0	0	0	0	1	5		
	00-00	0	0	0	0	0	1		
	00-00	0	0	0	0	0	0		

		VISIBILITY							15
		10	9	8	7	6	5	4	
LOW CLOUD CEILING	NC	0	0	0	0	1	1	49	
	50-99	0	0	0	0	0	0	0	
	30-49	0	0	0	0	0	0	4	
	20-29	0	0	0	0	0	1	9	
	10-19	0	0	0	0	1	9	10	
	0-10	0	0	1	0	1	7		
	0-0	0	0	0	0	1	0		
	1-5-0	0	0	0	0	0	0		
0-1-0	0	0	0	0	0	0			

	VISIBILITY				
	<1/2	1/2-1	1-2	2-4	4+
MC	0	0	0	2	1
00-00	0	0	0	0	0
00-00	0	0	0	1	3
00-00	0	0	0	0	5
10-00	0	0	0	0	0
0110	0	0	0	0	0
0-0	3	0	0	0	0
1-0-0	0	0	0	0	0
001-0	0	0	0	0	1

		VISIBILITY							20
		1/2	1/4	1/8	1/16	1/32	1/64	1/128	
LOW CLOUD CEILING	00	0	0	0	0	0	2	83	
	00-50	0	0	0	0	0	3	•	
	10-50	0	0	0	0	0	1	9	
	20-50	0	0	•	•	•	•	0	
	30-50	0	0	•	•	1	•	14	
	40-50	0	0	•	•	1	3		
	5-50	0	0	•	•	•	•	0	
	1-5-50	0	0	0	0	0	0	0	
0-1-5	0	0	0	•	•	0	0		

		VISIBILITY							21
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CELLING	00	0	0	0	0	1	57		
	00-20	0	0	0	0	0	0		
	20-40	0	0	0	0	0	1		
	40-60	0	0	0	0	0	20		
	60-80	0	0	0	0	3	0		
	80-100	0	0	0	1	0	1		
	90-95	0	0	0	0	1	0		
	100-105	0	0	0	0	0	0		
0<1.5	0	0	0	0	0	0	1		

		VISIBILITY							22
		0-1/2	1/2-1	1-2	2-4	4-8	8-16	16+	
LOW CLOUD CEILING	00	0	0	0	0	3	33		
	00-00	0	0	0	0	0	0		
	00-00	0	0	0	0	2	2		
	00-00	0	0	0	0	2	14		
	00-00	0	0	0	0	0	3		
	0-10	0	0	0	0	1	7		
	0-05	0	0	1	0	0	1		
	1-00	0	0	0	0	0	0		
0-1.0	0	0	0	0	0	0	1		

		VISIBILITY							23
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10-100	
LOW CLOUD CELLING	00	0	0	0	0	4	51		
	00-00	0	0	0	0	0	0		
	00-00	0	0	0	1	0	1		
	00-00	0	0	0	0	1	4		
	00-00	0	0	0	1	7	14		
	0-10	0	0	1	3	8			
	0-0	0	0	1	1	1			
	1-5-10	0	0	0	0	0	0		
0-1-0	0	0	0	0	0	0			

		VISIBILITY						24
		<1/8	1/8	1/4	1/2	3/4	10	
LOW CLOUD CEILING	NC	0	0	0	0	2	62	
	00-00	0	0	0	0	+	1	
	00-00	0	0	0	0	1	1	
	00-00	0	0	0	+	1	4	
	10-00	0	0	0	1	4	17	
	0-10	+	0	0	1	2	9	
	0-0	0	0	0	1	1	1	
	1-00	0	0	+	0	0	0	
0-1-0	0	0	0	0	0	0		

	VISIBILITY				
	1-99	100-1	1-2	2-99	1000
ALL	1	0	0	0	1
00-09	0	0	0	1	0
10-19	0	0	0	0	1
20-29	0	0	0	0	1
30-39	0	0	0	0	1
40-49	0	0	0	0	1
50-59	0	0	0	0	1
60-69	0	0	0	0	1
70-79	0	0	0	0	1
80-89	0	0	0	0	1
90-99	0	0	0	0	1
100-109	0	0	0	0	1
110-119	0	0	0	0	1
120-129	0	0	0	0	1
130-139	0	0	0	0	1
140-149	0	0	0	0	1
150-159	0	0	0	0	1
160-169	0	0	0	0	1
170-179	0	0	0	0	1
180-189	0	0	0	0	1
190-199	0	0	0	0	1
200-209	0	0	0	0	1
210-219	0	0	0	0	1
220-229	0	0	0	0	1
230-239	0	0	0	0	1
240-249	0	0	0	0	1
250-259	0	0	0	0	1
260-269	0	0	0	0	1
270-279	0	0	0	0	1
280-289	0	0	0	0	1
290-299	0	0	0	0	1
300-309	0	0	0	0	1
310-319	0	0	0	0	1
320-329	0	0	0	0	1
330-339	0	0	0	0	1
340-349	0	0	0	0	1
350-359	0	0	0	0	1
360-369	0	0	0	0	1
370-379	0	0	0	0	1
380-389	0	0	0	0	1
390-399	0	0	0	0	1
400-409	0	0	0	0	1
410-419	0	0	0	0	1
420-429	0	0	0	0	1
430-439	0	0	0	0	1
440-449	0	0	0	0	1
450-459	0	0	0	0	1
460-469	0	0	0	0	1
470-479	0	0	0	0	1
480-489	0	0	0	0	1
490-499	0	0	0	0	1
500-509	0	0	0	0	1
510-519	0	0	0	0	1
520-529	0	0	0	0	1
530-539	0	0	0	0	1
540-549	0	0	0	0	1
550-559	0	0	0	0	1
560-569	0	0	0	0	1
570-579	0	0	0	0	1
580-589	0	0	0	0	1
590-599	0	0	0	0	1
600-609	0	0	0	0	1
610-619	0	0	0	0	1
620-629	0	0	0	0	1
630-639	0	0	0	0	1
640-649	0	0	0	0	1
650-659	0	0	0	0	1
660-669	0	0	0	0	1
670-679	0	0	0	0	1
680-689	0	0	0	0	1
690-699	0	0	0	0	1
700-709	0	0	0	0	1
710-719	0	0	0	0	1
720	0	0	0	0	1

		VISIBILITY						29
		0-1/2	1/2-1	1-2	2-5	5-10	10-20	
LOW CLOUD CELLING	OC	•	•	•	•	•	2	30
	00-05	•	•	•	•	•	•	2
	05-10	•	•	•	•	•	2	5
	10-20	•	•	•	•	•	2	10
	20-30	•	•	•	•	1	3	15
	30-40	•	•	•	•	1	4	5
	40-50	•	•	•	•	•	1	1
	50-60	•	•	•	•	•	•	•
60-70	•	•	•	•	•	•	•	

		VISIBILITY						30
		<1/2	1/2-1	1-2	2-3	3-10	>10	
LOW CLOUD CEILING	MC	0	0	0	0	0	24	
	00-05	0	0	0	0	0	10	
	05-10	0	0	0	0	0	0	
	10-15	0	0	0	0	16	5	
	15-20	0	0	0	3	14	24	
	20-25	0	0	0	0	0	0	
	25-30	0	0	0	0	0	0	
	30-35	0	0	0	0	0	0	

**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

INSUFFICIENT DATA

		VISIBILITY						33
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10	
LOW CLOUD CEILING	MC	0	0	1	0	2	43	
	10-20	0	0	0	1	1	0	
	20-30	0	0	0	0	1	0	
	30-40	1	0	0	0	0	7	
	40-50	0	0	1	0	2	17	
	5-10	0	0	0	0	3	6	
	5-8	0	0	0	0	0	1	
	1.5-3	0	0	0	0	1	0	
0-1.5	1	0	0	2	1	0		

Graphs represent the objective compilation of available data for specified areas without reg
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

JULY

When low cloud amount

cases of $N_h < 5/8$

With visibility ≥ 5 but < 10

by ≥ 5 nautical miles

		VISIBILITY						
		<1/4	1/4-1/2	1/2	3/8	5/8-1	1-10	>10
LOW CLOUD CEILING	HC	0	0	0	1	4	57	
	50-99	0	0	0	0	0	0	
	99-999	0	0	0	0	1	1	
	20-39	0	0	0	+	+	6	
	10-19	0	0	0	+	1	9	
	5-9	0	0	+	0	2	14	
	3-4	0	0	0	0	+	1	
	1, 6-9	0	0	0	0	0	0	
0<1.9	+	0	0	0	1	0		

	VISIBILITY						
	<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10
NC	0	0	0	0	6	80	
50-99	0	0	0	0	+	+	
35-49	0	0	0	0	0	1	
20-34	0	0	0	0	1	3	
10-19	0	0	0	1	2	11	
5-9	0	0	0	1	3	6	
3-4	0	0	0	1	1	2	
1.5-2	0	0	0	0	0	+	
0-1.4	0	0	0	0	+	0	

		VISIBILITY						3
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CEILING	NC	0	0	0	0	3	57	
	90-99	0	0	0	0	0	1	
	35-59	0	0	0	0	0	1	
	20-34	0	1	1	1	1	8	
	10-19	0	0	0	3	3	12	
	5-10	0	0	1	1	5	4	
	3-4	0	1	0	0	0	0	
	1.5-2	0	0	0	0	0	0	
0-1.5	0	0	0	0	0	0	178	

		VISIBILITY					
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1
LOW CLOUD CEILING	NC	0	0	0	0	2	30
	50-99	0	0	0	0	1	0
	30-49	0	0	0	+	1	0
	20-29	0	0	0	0	2	8
	10-19	0	0	0	1	7	10
	5-9	0	0	0	0	4	12
	3-4	0	0	0	0	3	1
	1-2	0	0	0	0	0	1
	0-1	0	0	0	+	0	+

		VISIBILITY					
		1/8	1/4	1/2	3/4	1	10
MC		+	0	0	+	1	SE
0000		0	0	0	0	+	+
0000		0	0	0	0	0	3
0000		0	0	+	0	1	0
1010		0	0	0	0	1	17
0020		0	0	+	0	1	10
300		0	0	0	0	1	1
1000		0	0	0	0	0	1
0010		0	0	0	+	0	0

		VISIBILITY							6
		<1/4	1/4-1/2	1/2	2-5	5-10	>10		
LOW CLOUD CEILING	MC	0	+	0	1	4	42		
	50-99	0	0	0	0	+	1		
	35-49	0	0	+	+	1	2		
	20-34	0	0	0	0	2	7		
	10-19	0	0	0	1	4	15		
	0-9	0	0	1	1	4	10		
	0-5	0	+	+	1	2	1		
	1-5-9	0	0	0	1	+	+		
0-1-5	0	0	0	0	+	0			

		VISIBILITY							7
		<1/8	1/8	1/4	1/2	3/4	1	10	
LOW CLOUD CEILING	NC	0	0	0	4	6	72		
	99-99	0	0	0	0	0	0		
	35-99	0	0	0	0	0	0		
	99-99	0	0	0	0	0	3		
	10-99	0	0	0	0	2	7		
	0-10	0	1	0	0	1	2		
	0-5	0	0	0	0	0	1		
	1-5	0	0	0	0	0	0		
0-1.5	0	0	0	1	0	1			

		VISIBILITY								8
		<1/8	1/8-1/4	1/4	1/2	3/4	1-10	>10		
LOW CLOUD CEILING	NC	0	0	0	0	+	1	85		
	00-00	0	0	0	0	0	0	0		
	00-00	0	0	0	0	0	0	+		
	00-37	0	0	0	0	0	+	2		
	10-00	0	0	0	0	0	1	7		
	0-10	0	0	0	0	0	0	1		
	0-0	0	0	0	0	0	0	1		
	1-0-3	0	0	0	0	0	0	+		
0-1-0	+	0	0	0	+	0	0			

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-3	3-10
LOW CLOUD CEILING	MC	0	0	0	0	+	1 30
	50-99	0	0	0	0	+	2
	99-99	0	0	0	0	+	8
	20-99	0	0	0	0	+	9
	10-99	0	0	+	+	1	20
	0-10	0	0	0	0	1	20
	0-0	0	0	0	0	+	+
	1-0-3	0	0	0	0	0	0
0-1-0	0	0	0	0	0	0	

		VISIBILITY					
		0/0	0/1	1/2	2/3	3/4	4/5
MC		0	0	0	+	1	37
00-00		0	0	0	0	+	1
20-00		0	0	3	0	+	0
00-00		0	0	0	+	+	11
10-00		0	0	+	+	2	24
00-00		0	0	+	+	2	11
000		0	0	0	+	1	2
10-00		0	0	0	0	0	0
00-00		0	0	0	0	0	0

		VISIBILITY							15
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-3	3-10	MI	
LOW CLOUD CEILING FEET	NC	0	0	0	1	1	43		
	00-00	0	0	0	0	0	0		
	00-00	0	0	0	0	0	4		
	00-00	0	0	0	0	1	0		
	00-00	0	0	0	1	8	10		
	0-10	0	0	1	0	1	7		
	0-40	0	0	0	0	1	0		
	1-0-0	0	0	0	0	0	0		
0-1-0	0	0	0	0	0	0			
								70	

		VISIBILITY							16
		1-9	10-19	20-29	30-39	40-49	50-59		
LOW CLOUD CEILING FEET	MC	0	0	0	2	1	12		
	00-00	0	0	0	0	0	0		
	00-00	9	0	0	1	2	0		
	00-00	0	0	0	0	3	10		
	10-00	0	0	0	0	0	42		
	0-10	0	0	0	0	0	12		
	0-0	0	0	0	0	0	2		
	1-0-0	0	0	0	0	0	0		
0-1-0	0	0	0	0	1	0	10		

		VISIBILITY						17
		<1/2	1/2-1	1-2	2-4	>4-10	>10	
02		0	0	0	0	2	05	
03-05		0	0	0	0	1	0	
05-08		0	0	0	*	*	3	
08-09		0	0	0	*	1	5	
10-00		0	0	0	0	3	9	
0-10		0	0	0	*	1	6	
0-0		0	0	0	0	1	1	
1-00		0	0	0	0	0	0	
0-1-5		0	0	0	0	0	*	

		VISIBILITY					
		1-9	0-9	1-9	0-9	1-9	0-9
MC		0	0	+	0	1	0
00-00		0	0	0	0	0	0
00-00		0	0	0	0	0	0
00-00		0	0	0	0	0	0
00-00		0	0	0	0	0	0
00-00		0	1	1	1	2	10
00-00		0	0	0	1	3	0
00-00		0	0	0	+	1	+
00-00		0	0	0	0	0	0
00-00		0	+	0	0	0	0

		VISIBILITY						19
		1-9	10-19	20-29	30-39	40-49	50-59	
LOW CLOUD CELLING	NC	0	0	0	0	0	0	53
	00-00	0	0	0	0	0	0	1
	00-00	0	0	0	0	0	0	0
	00-00	0	0	0	0	0	0	0
	10-10	0	0	0	0	1	0	10
	0-10	0	0	0	0	1	0	7
	0-0	0	0	0	0	0	0	0
	1-0-0	0	0	0	0	0	0	0
0-1-0	0	0	0	0	0	0	0	

[illegible]

		VISIBILITY							25
		1-1/2	1	1/2	0-1/2	0-1/4	0-1/8	0	
LOW CLOUD CEILING	MC	1	0	0	0	2	30		
	00-00	0	0	0	1	0	1		
	00-00	0	0	0	0	1	1		
	00-00	0	0	0	0	0	3		
	00-00	0	0	0	1	0	12		
	00-00	0	0	0	0	0	0		
	00-00	0	0	1	0	0	0		
	00-00	0	0	0	1	0	0		

		VIABILITY							26
		1-2	3-4	5-6	7-8	9-10	11-12		
LOW CLONING EFFICIENCY	MC	0	0	0	0	5	42		
	00-00	0	0	0	1	0	2		
	00-00	0	0	0	1	0	4		
	00-00	0	0	0	0	2	9		
	10-00	0	0	0	0	4	10		
	0-10	0	0	1	0	3	7		
	0-0	0	0	0	1	1	0		
	1-0-0	0	0	0	0	0	0		
0-0-0	0	0	0	0	0	0			

27

**INSUFFICIENT
DATA**

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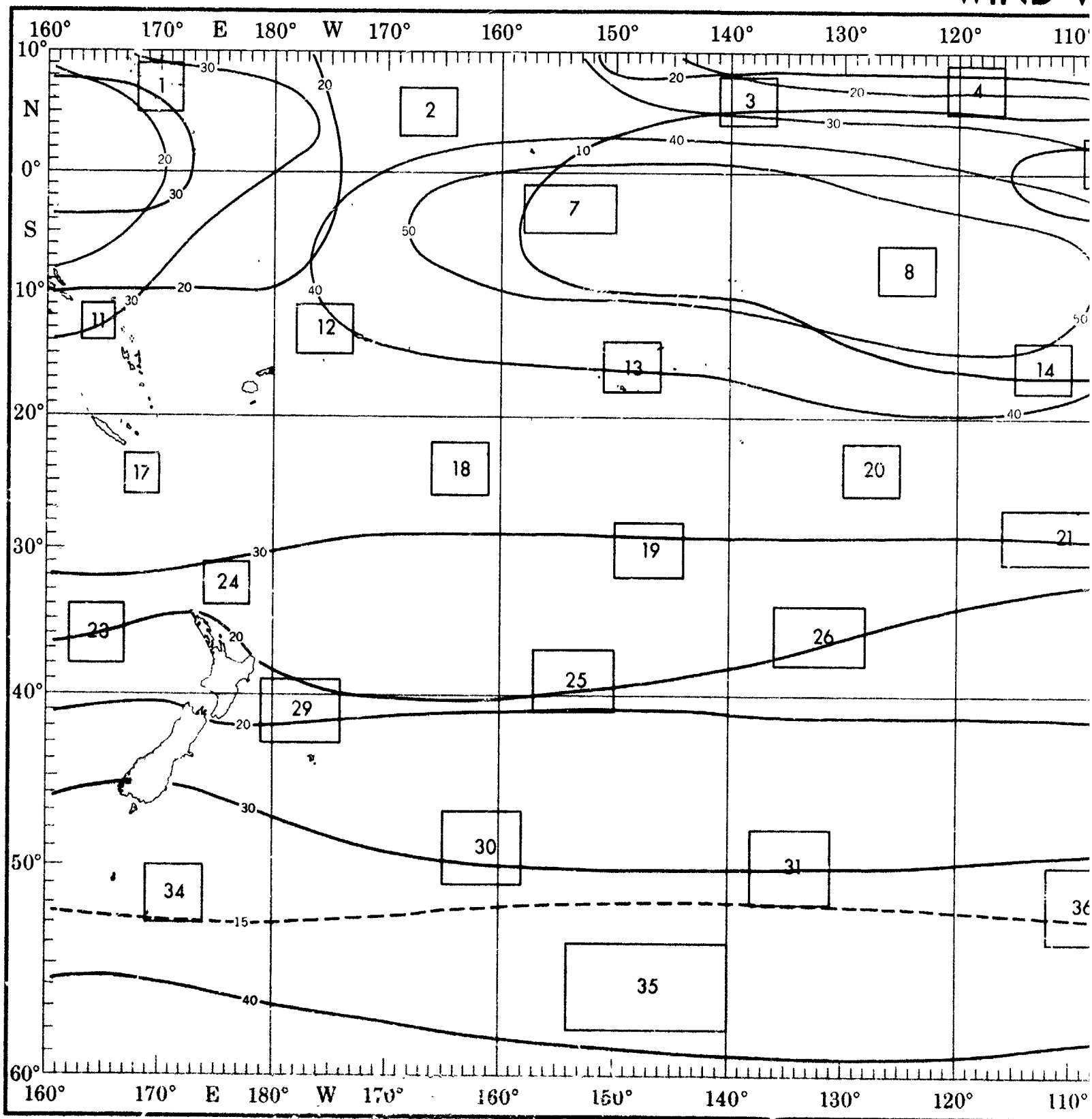
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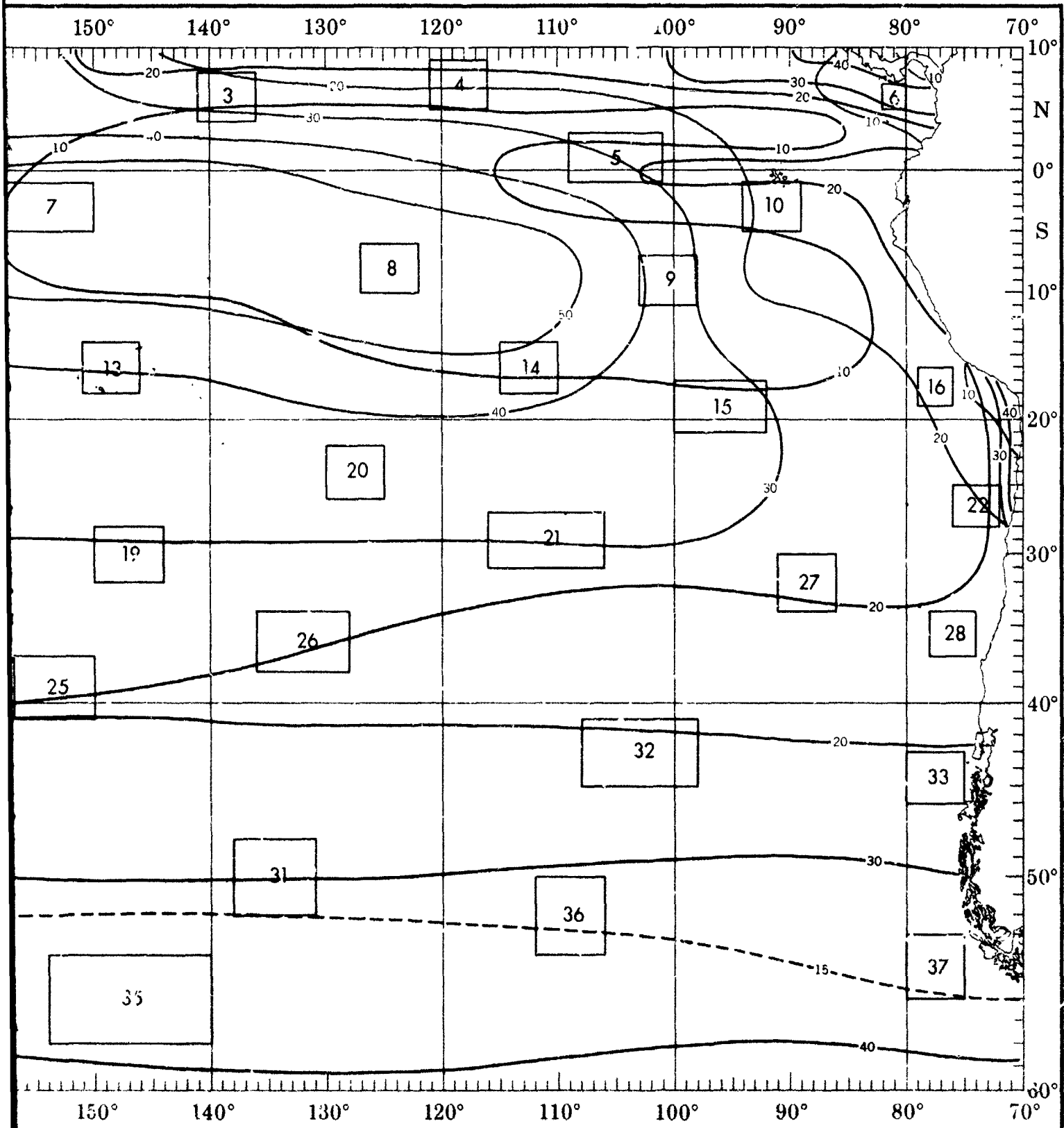
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JULY

WIND-V



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsky) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

WIND SPEED (knots)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	+	1	1	+	0
<.5 & OR <.2	2	2	1	1	+
<.2 & OR <.1	3	4	2	1	1
<.1 & OR <.05	8	9	6	3	2
Vsky ≥ 5	11	12	3	1	1
>50 & OR >5	12	13	15	3	3
NC & >10	4	2	1	+	0

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

indicates <5% but >0

Number of observations

Conditions for Carrier Operations

BLUE LINE Percent frequency of optimum conditions LCC ≥ 5000 ft., (or no LCC), Vsky ≥ 5 nm and Wind 11-21 kts

RED LINE - Percent frequency of poor conditions Any one of the following constitutes poor conditions LCC <300 ft., Vsky <1 nm, Wind <6 or ≥ 34 kts

Satisfactory conditions between poor and optimum

11 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	0	0	0
<.5 & OR <.2	0	0	3	0	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	0	0	14	5	0
Vsky ≥ 5	5	29	48	12	1
>50 & OR >5	5	29	23	5	0
NC & >10	5	29	22	5	0

12 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	1	1	0	0
<.5 & OR <.2	0	1	4	0	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	2	3	7	1	1
Vsky ≥ 5	6	35	48	8	2
>50 & OR >5	4	28	33	5	1
NC & >10	4	25	30	5	1

13 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	+	0	0	0
<.5 & OR <.2	0	1	+	0	0
<.2 & OR <.1	0	+	0	0	0
<.1 & OR <.05	+	2	3	+	0
Vsky ≥ 5	5	40	48	6	0
>50 & OR >5	4	34	34	3	0
NC & >10	4	33	30	3	0

14 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	+	0	0
<.5 & OR <.2	0	+	+	+	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	1	1	5	1	0
Vsky ≥ 5	4	27	60	8	1
>50 & OR >5	3	20	38	5	1
NC & >10	3	19	38	5	1

15 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	0	0	0
<.5 & OR <.2	0	0	1	0	0
<.2 & OR <.1	0	0	0	1	0
<.1 & OR <.05	1	1	7	1	0
Vsky ≥ 5	4	37	49	6	1
>50 & OR >5	1	20	20	3	0
NC & >10	1	19	20	3	0

16 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	1	0	0
<.5 & OR <.2	0	0	1	2	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	0	6	9	0	0
Vsky ≥ 5	3	34	57	3	0
>50 & OR >5	0	7	4	2	0
NC & >10	0	7	3	2	0

20 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	0	+	0
<.5 & OR <.2	0	1	+	+	0
<.2 & OR <.1	0	+	+	+	0
<.1 & OR <.05	+	2	2	1	0
Vsky ≥ 5	4	37	47	8	1
>50 & OR >5	3	25	32	4	+
NC & >10	3	24	31	4	+

21 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	0	1	0
<.5 & OR <.2	0	0	1	1	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	0	1	2	1	0
Vsky ≥ 5	2	42	46	9	0
>50 & OR >5	1	28	26	4	0
NC & >10	1	28	25	3	0

22 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	1	0	0	0
<.5 & OR <.2	1	1	1	0	0
<.2 & OR <.1	0	1	2	0	0
<.1 & OR <.05	1	5	5	1	0
Vsky ≥ 5	6	35	50	6	0
>50 & OR >5	2	13	18	5	0
NC & >10	2	13	14	4	0

23 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	+	+	+	+
<.5 & OR <.2	0	1	2	1	1
<.2 & OR <.1	0	+	1	0	+
<.1 & OR <.05	+	3	6	4	2
Vsky ≥ 5	4	25	42	17	5
>50 & OR >5	3	16	25	8	2
NC & >10	3	15	23	7	1

24 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	0	+	0	0
<.5 & OR <.2	0	0	1	1	+
<.2 & OR <.1	0	0	1	0	0
<.1 & OR <.05	0	5	8	2	1
Vsky ≥ 5	7	27	45	17	4
>50 & OR >5	2	15	25	11	3
NC & >10	1	15	25	10	2

25 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	+	1	+	+
<.5 & OR <.2	0	1	2	1	+
<.2 & OR <.1	0	1	1	+	+
<.1 & OR <.05	+	4	11	6	+
Vsky ≥ 5	2	23	46	18	7
>50 & OR >5	+	12	22	7	+
NC & >10	+	12	20	7	+

29 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	+	+	+	0
<.5 & OR <.2	0	+	+	2	1
<.2 & OR <.1	0	+	+	0	1
<.1 & OR <.05	0	2	4	5	3
Vsky ≥ 5	7	23	40	22	5
>50 & OR >5	2	13	17	8	1
NC & >10	2	12	15	4	1

30 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	5	0	0	0
<.5 & OR <.2	0	5	0	0	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	0	5	0	0	0
Vsky ≥ 5	0	30	35	25	10
>50 & OR >5	0	10	10	10	5
NC & >10	0	0	10	10	5

31 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	0	5	0	0	0
<.5 & OR <.2	0	5	0	0	0
<.2 & OR <.1	0	0	0	0	0
<.1 & OR <.05	0	15	10	15	5
Vsky ≥ 5	0	30	35	25	10
>50 & OR >5	0	10	10	10	5
NC & >10	0	0	10	10	5

32 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	1	1	1	2	0
<.5 & OR <.2	2	1	1	5	1
<.2 & OR <.1	1	0	0	3	0
<.1 & OR <.05	2	2	7	7	1
Vsky ≥ 5	2	8	10	18	1
>50 & OR >5	2	22	30	36	2
NC & >10	2	15	15	14	0

33 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	1	1	1	2	0
<.5 & OR <.2	2	1	1	5	1
<.2 & OR <.1	1	0	0	3	0
<.1 & OR <.05	2	2	7	7	1
Vsky ≥ 5	2	8	10	18	1
>50 & OR >5	2	22	30	36	2
NC & >10	2	15	15	14	0

34 WIND SPEED (KNOTS)

LCC - Vsky	0-3	4-10	11-21	22-33	34
<1.0 & OR <.5	1	1	1	2	0
<.5 & OR <.2	2	1	1	5	1
<.2 & OR <.1	1	0	0	3	0
<.1 & OR <.05	2	2	7	7	1
Vsky ≥ 5	2	8	10	18	1
>50 & OR >5	2	22	30	36	2
NC & >10	2	15	15	14	0

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Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted v

JULY

visibility (V_{isby}) in nautical

buds (h) when low cloud amount

- Fuel ceiling <1000 feet and/or

Occurrences of $N_h < 5/8$

nm and Wind 11 21 kts

conditions LCC < 300 ft.

(PYS)

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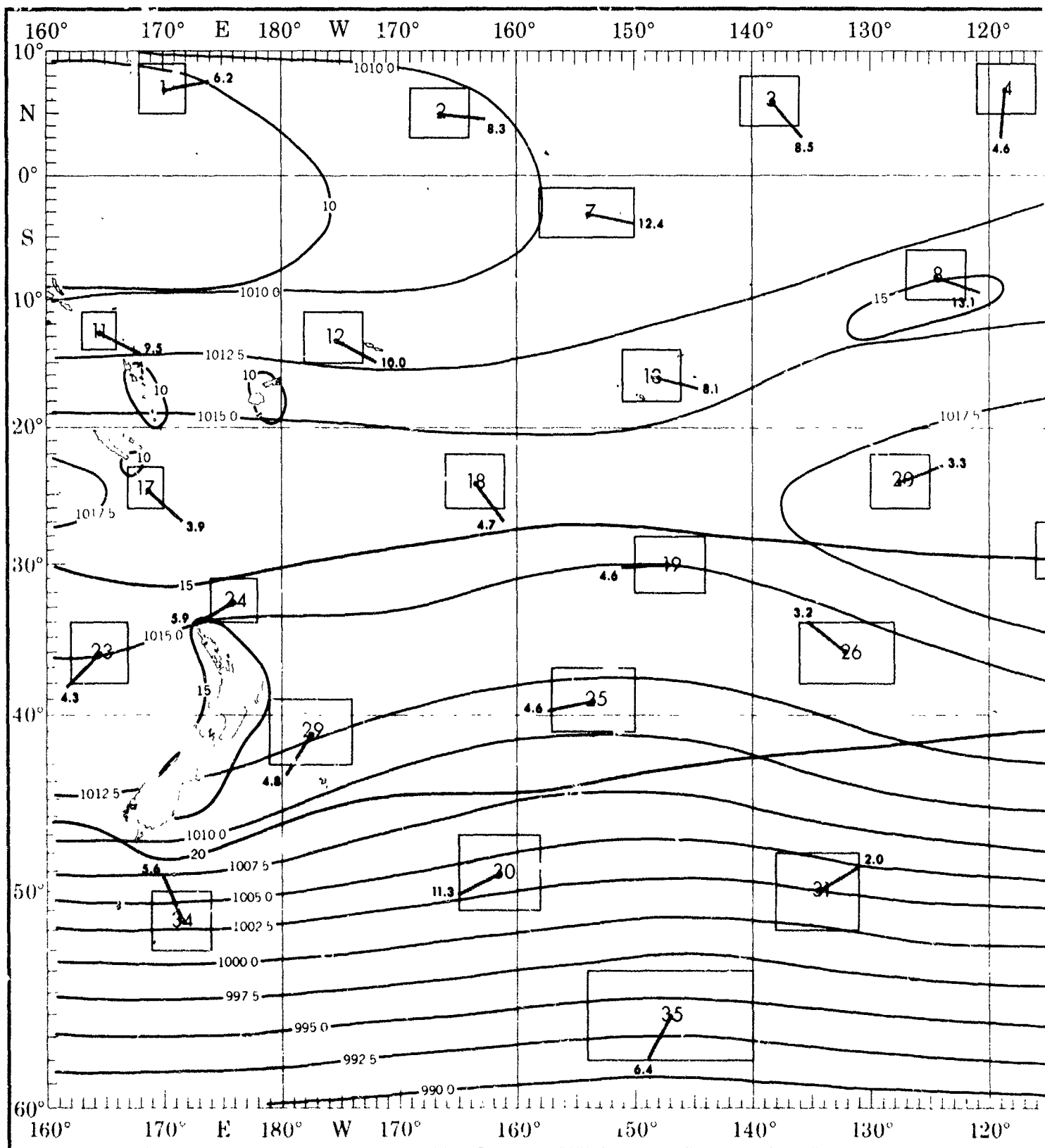
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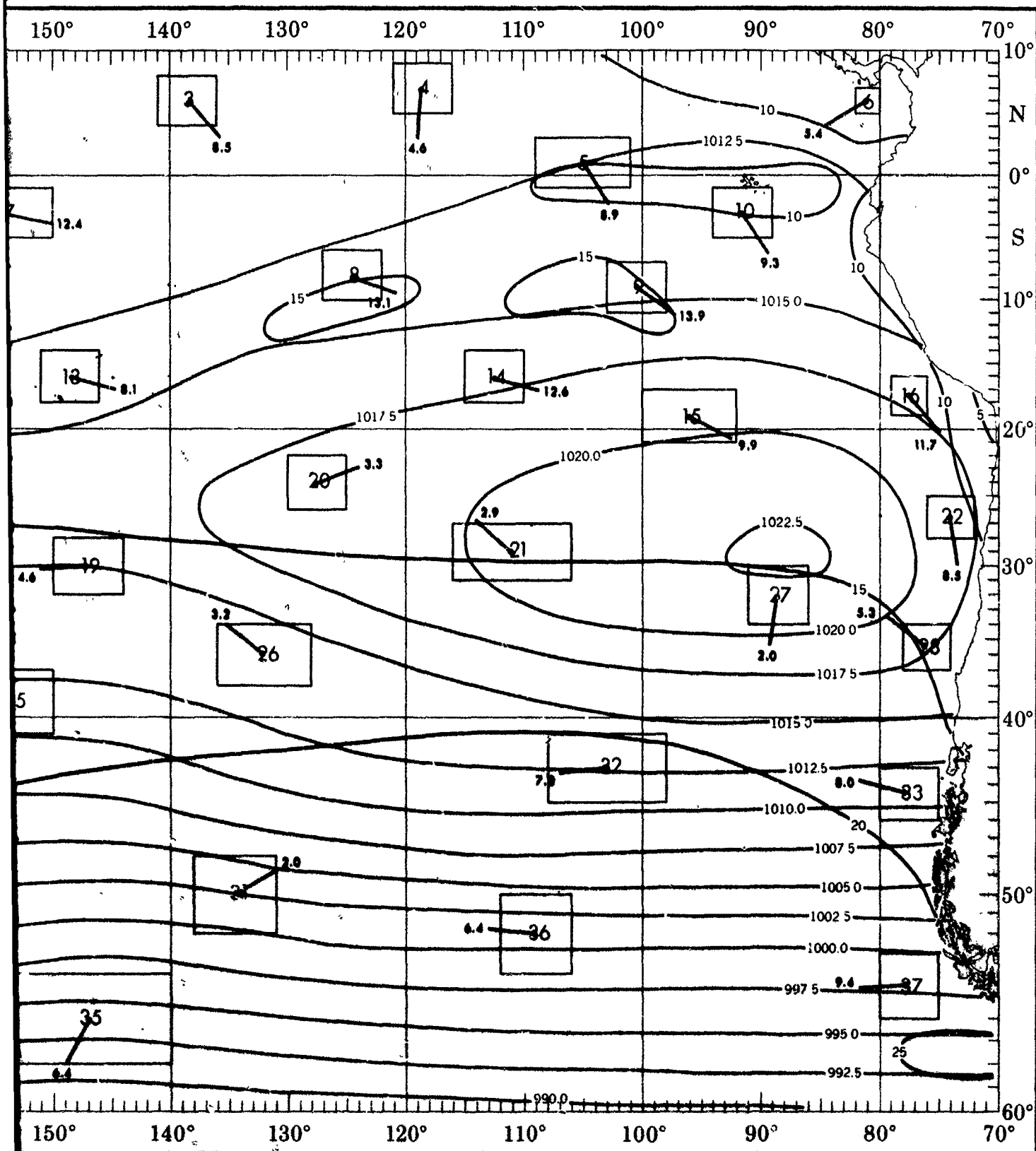
the objective compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

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SEA LEVEL PR

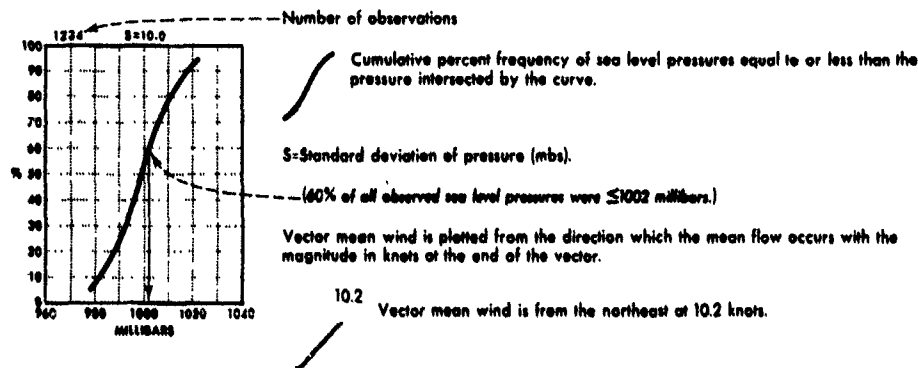


SEA LEVEL PRESSURE AND MEAN WIND



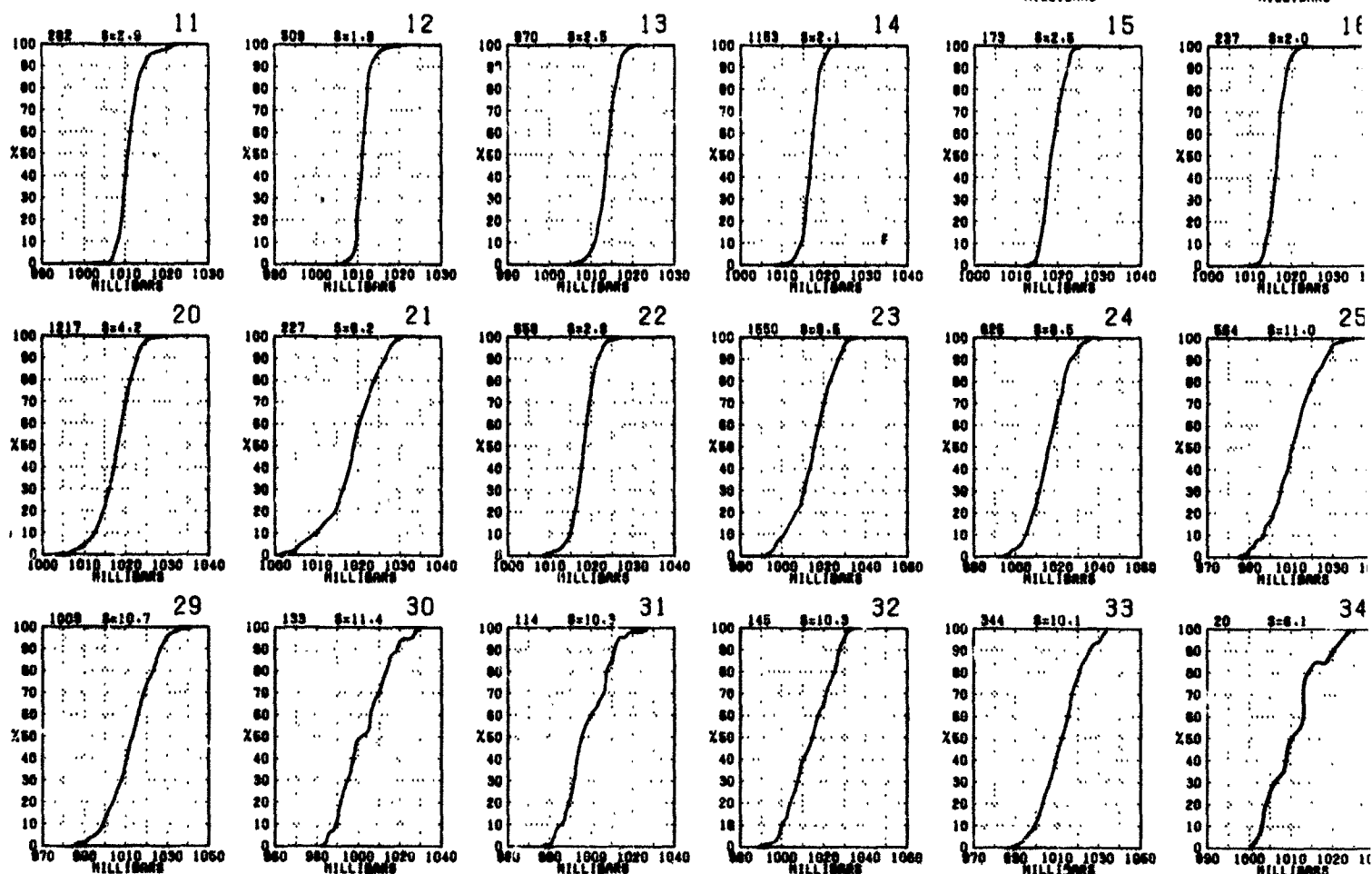
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



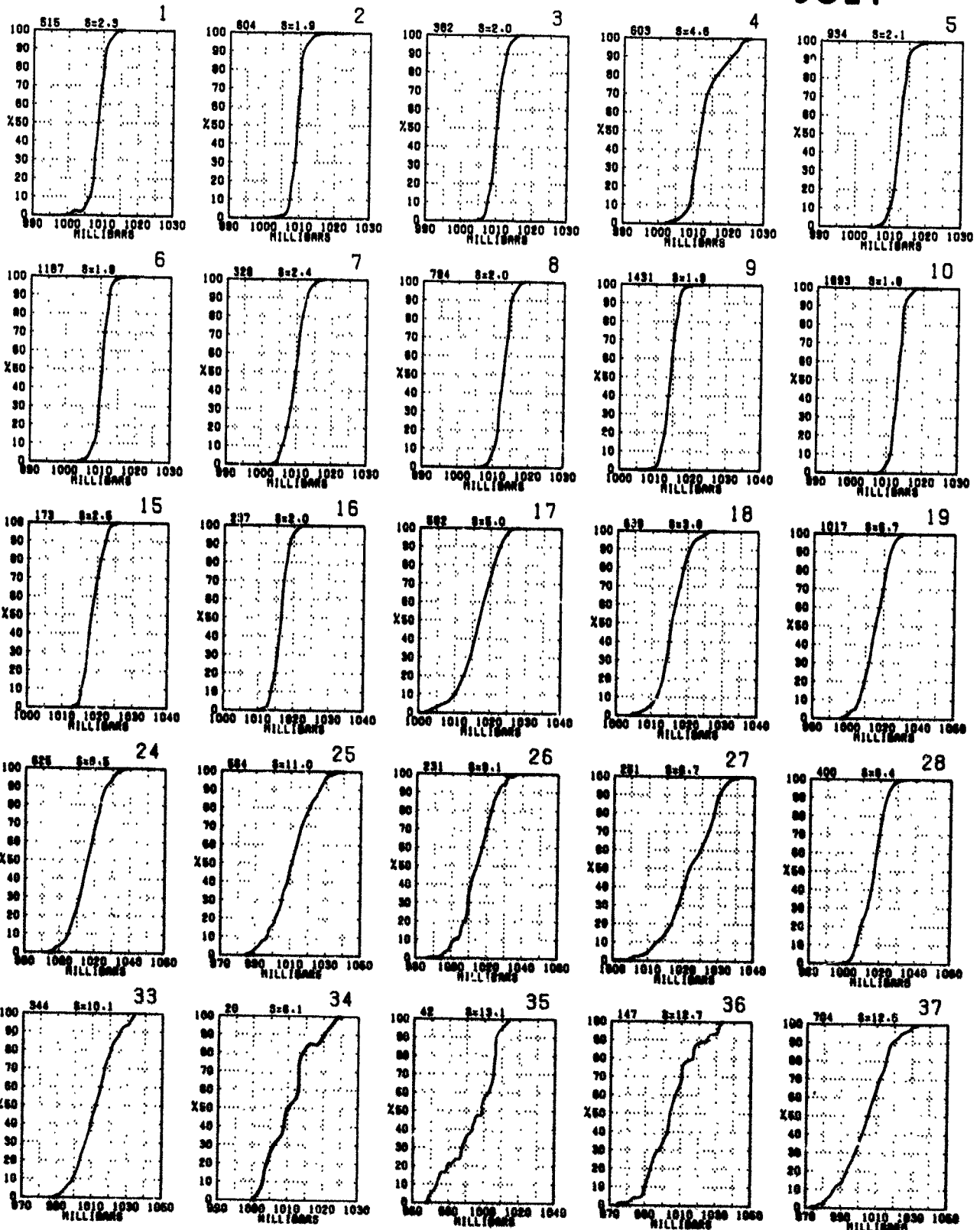
BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without reg
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

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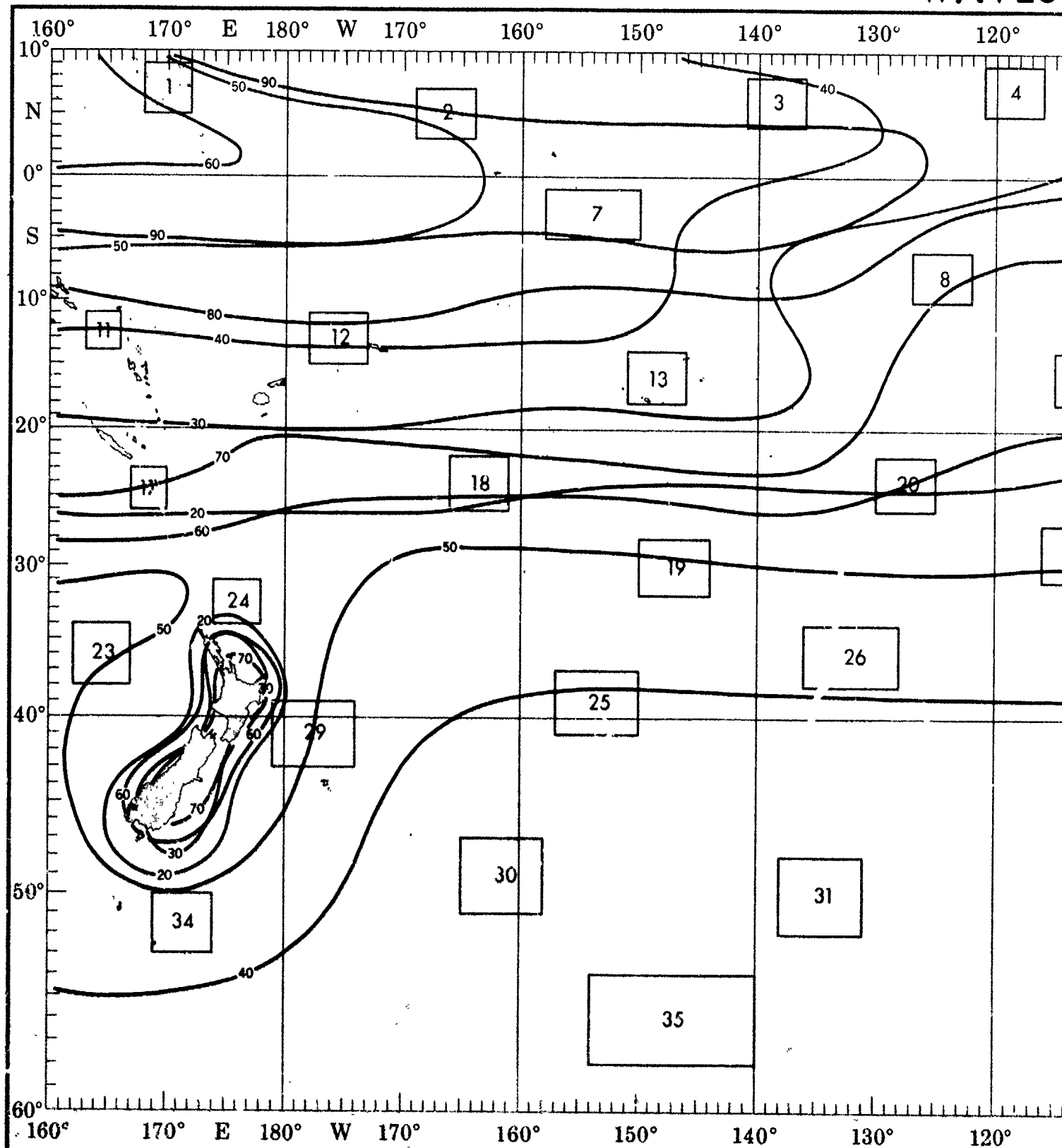
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w occurs with the

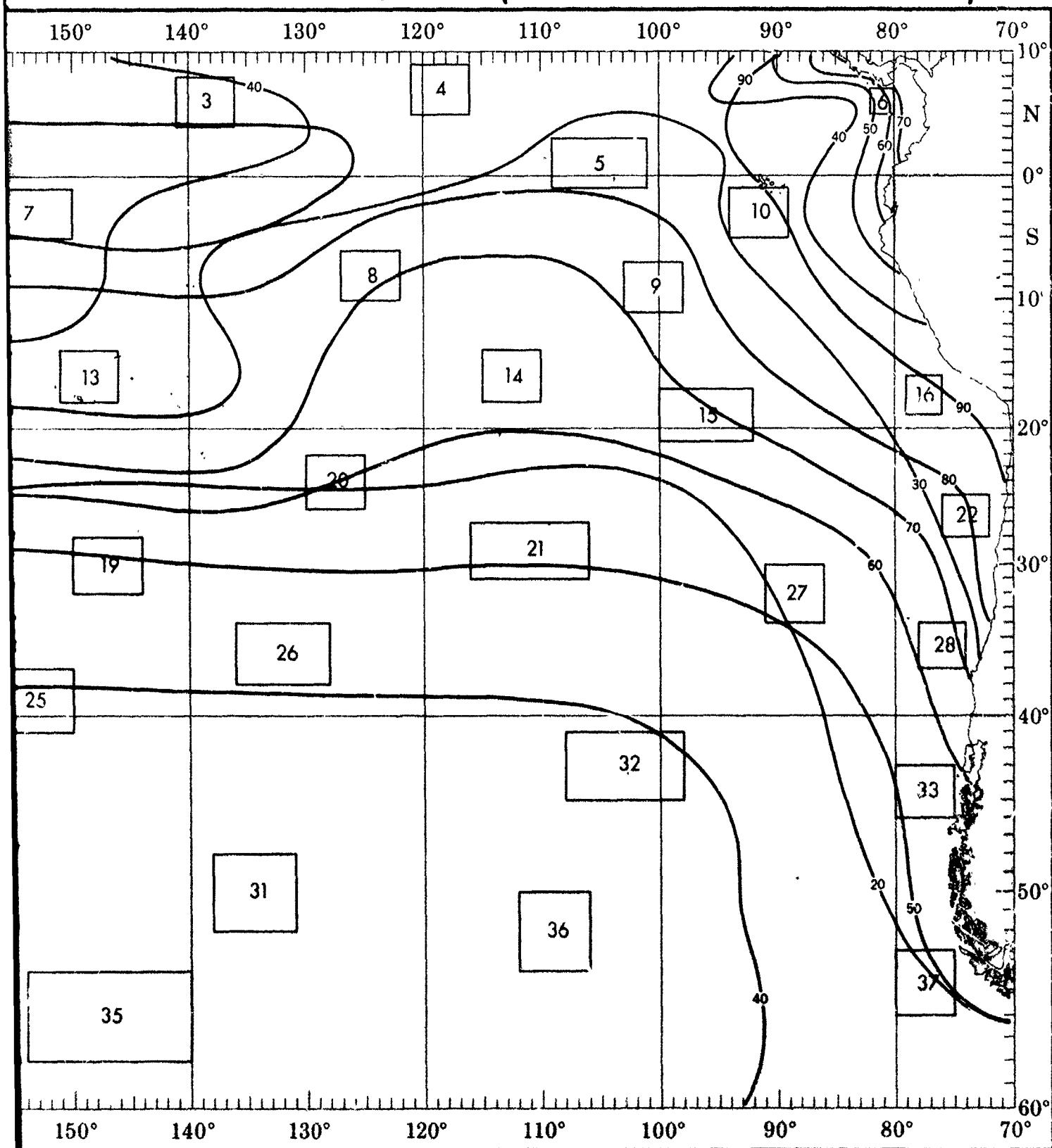
objective compilation of available data for specified area without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

JULY

WAVES



WAVES (<1.5 AND <2.5 METERS)

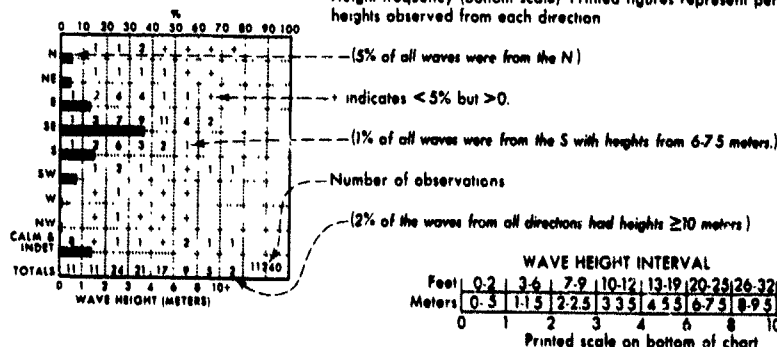


WAVE DIRECTION AND HEIGHT

Wave direction and height

Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



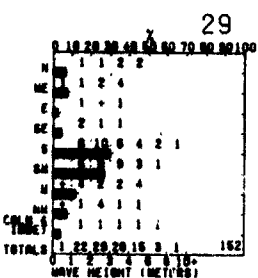
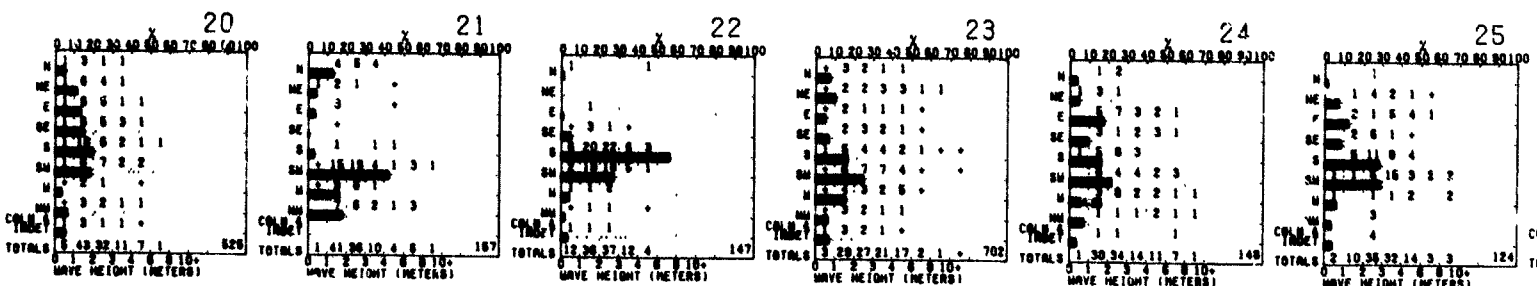
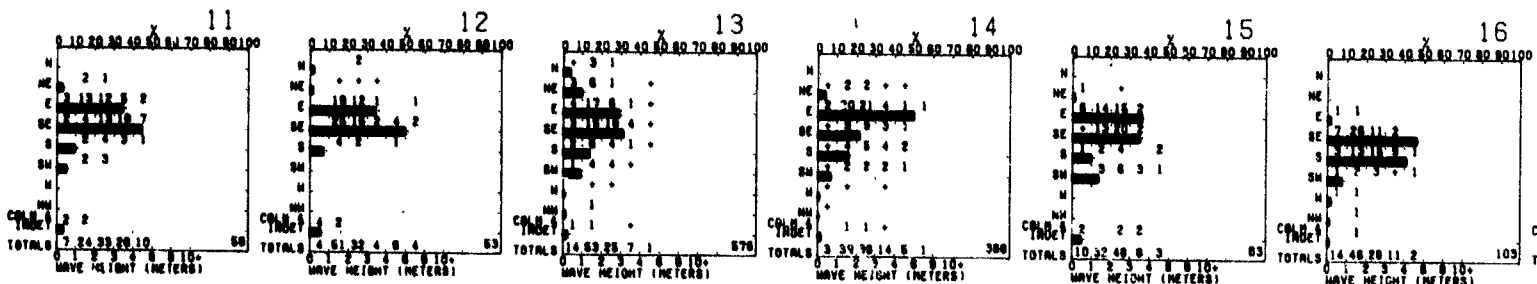
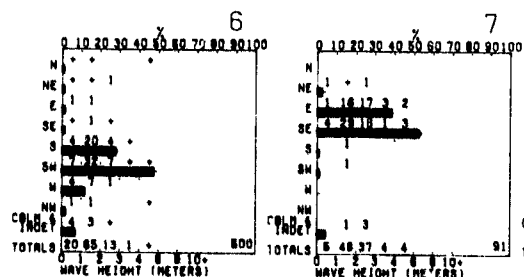
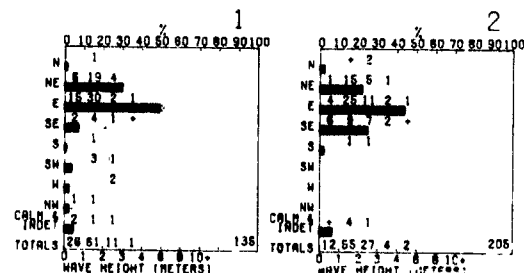
WAVE HEIGHT INTERVAL

Feet	0-2	3-6	7-9	10-12	13-19	20-25	26-32	≥ 33
Meters	0-3	1-1.5	2-2.5	3-3.5	4-5.5	6-7.5	8-9.5	≥ 10

Printed scale on bottom of chart

BLUE LINE - Percent frequency of wave height < 1.5 meters (5 feet)

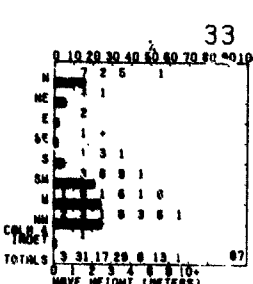
RED LINE - Percent frequency of wave height < 2.5 meters (8 feet)



INSUFFICIENT DATA

INSUFFICIENT DATA

INSUFFICIENT DATA



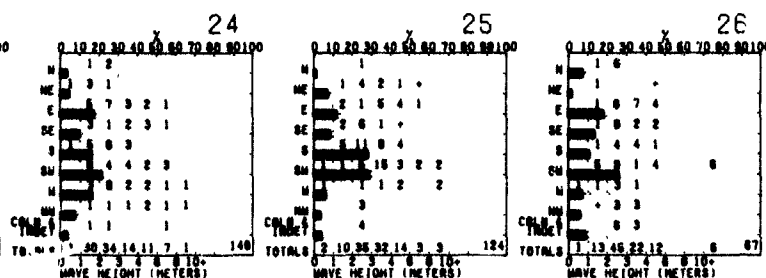
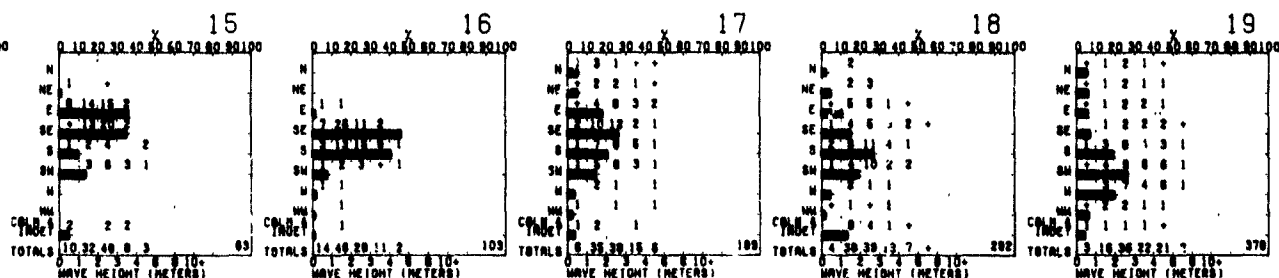
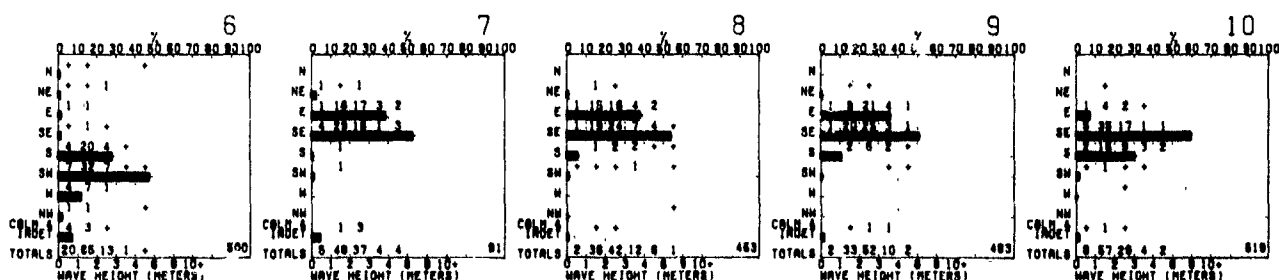
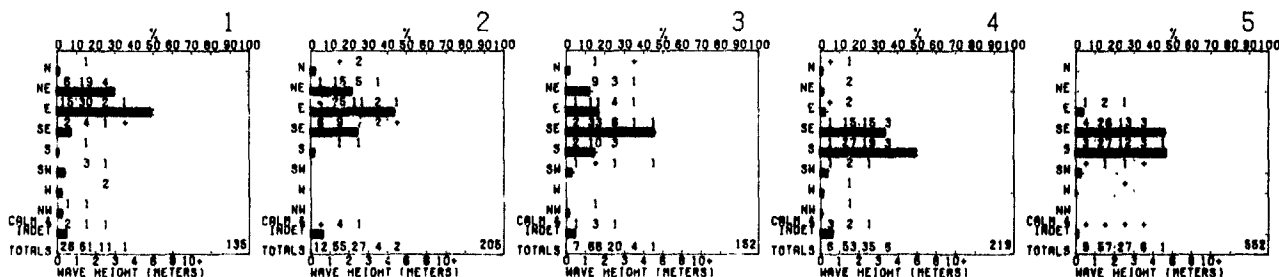
INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

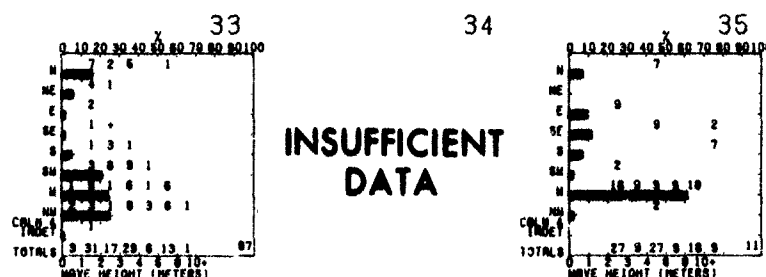
HEIGHT

JULY

Direction of waves from
Dominant frequency of wave



INSUFFICIENT DATA INSUFFICIENT DATA



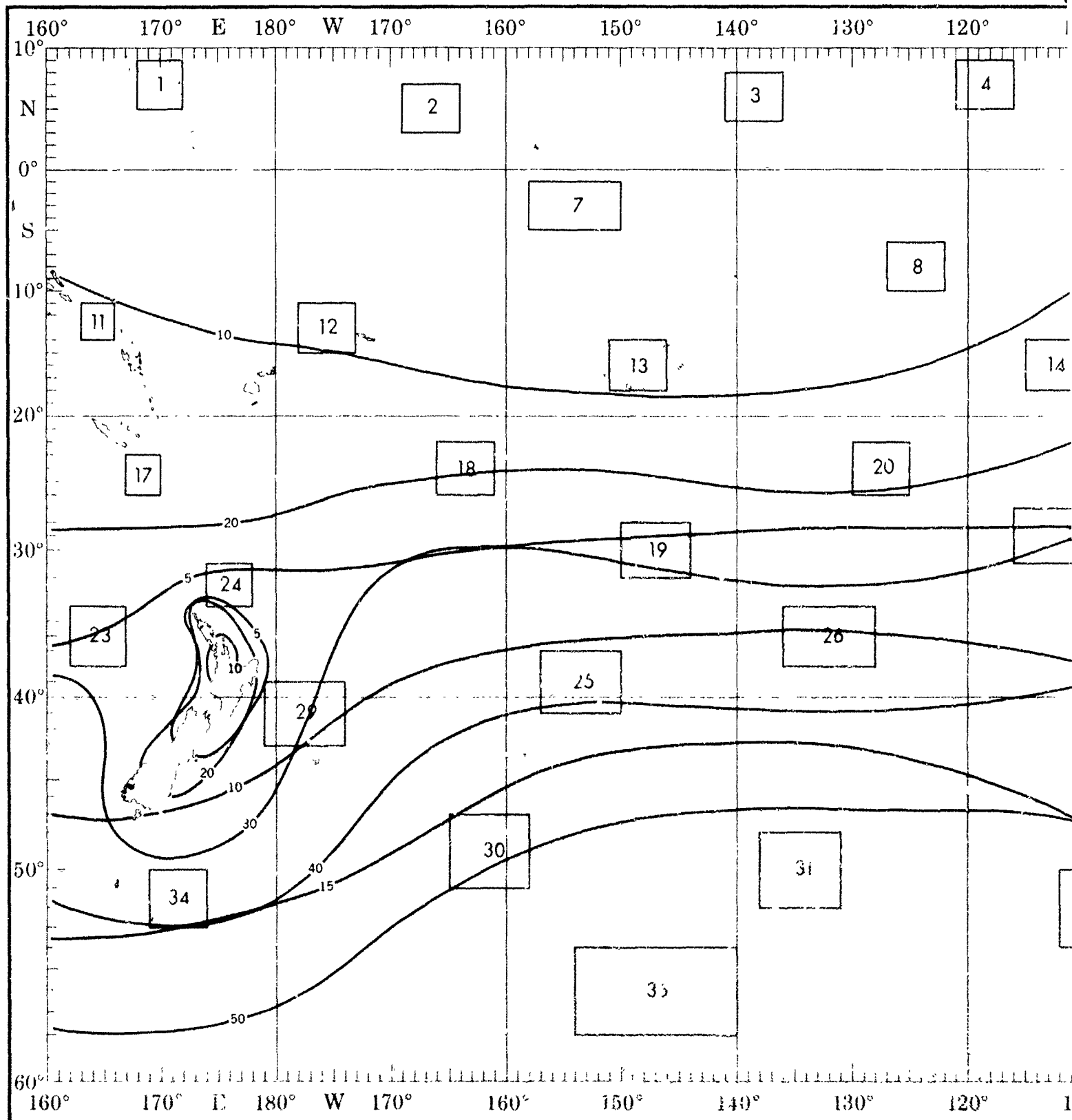
INSUFFICIENT DATA INSUFFICIENT DATA

pective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

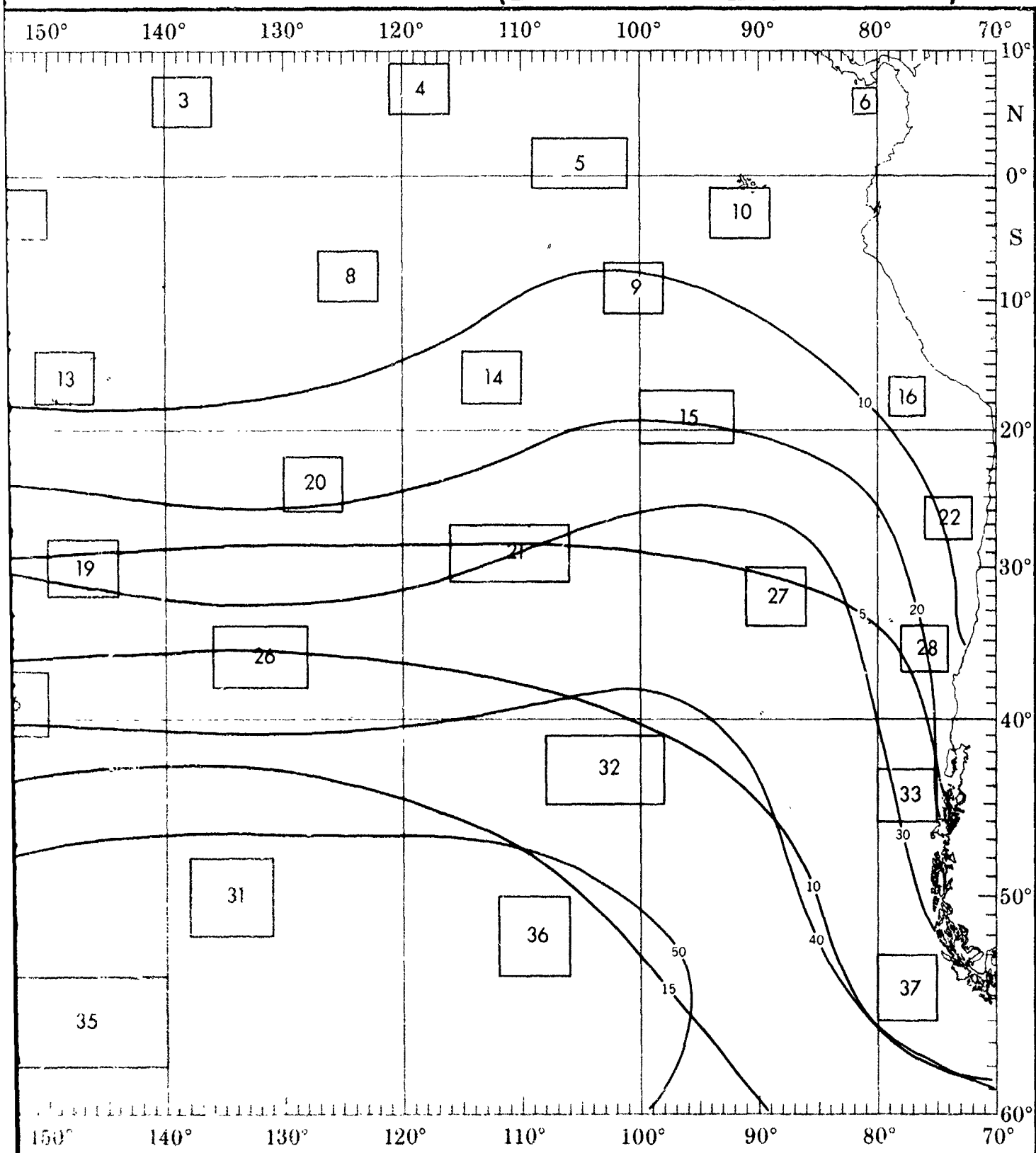
2

JULY

WAVES (



WAVES (≥ 3.5 AND ≥ 6 METERS)



WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height

PERIOD (Seconds)

HEIGHT (Meters)	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15
0-1	0	2	3	0	0	0	0	0	0	0
1-2	1	2	1	0	0	0	0	0	0	0
2-3	0	0	0	0	0	0	0	0	0	0
3-4	0	0	0	0	0	0	0	0	0	0
4-5	0	0	0	0	0	0	0	0	0	0
6-7	0	0	0	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0

4010

--- (2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

--- + indicates < 5% but > 0

--- Number of observations

--- Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE - Percent frequency of wave height ≥ 6 meters (20 feet)

MEZUN (STOPS)	PERIOD (SECONDS)						
	0-5	5-10	10-15	15-20	20-25	25-30	TOTAL
0-5	7	0	0	0	0	0	2
1-10	7	15	0	0	0	0	2
5-10	3	15	10	3	0	0	0
5-15	0	15	0	2	0	0	0
0-10	0	2	5	3	0	0	0
0-15	0	0	0	0	0	0	0
5-20	0	0	0	0	0	0	0
0-20	0	0	0	0	0	0	0

MEASUREMENT (CYCLES)	PERIOD (SECONDS)						
	0-5	5-10	10-15	15-20	20-25	25-30	TOTAL
0-5	2	0	0	0	0	0	2
1-1.5	21	19	4	4	2	0	2
2-2.5	6	15	2	6	0	2	0
3-3.5	2	2	0	0	0	0	0
4-4.5	0	2	4	0	2	0	0
5-5.5	0	0	0	4	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

[illegible][illegible]

HEIGHT (INCH)	PERIOD (SECONDS)						
	6-8	9	10	11	12	13	14
6-8	8	0	0	0	0	0	0
9-10	17	11	0	2	0	2	0
10-11	18	11	13	2	3	2	2
12-13	0	0	3	2	2	0	2
14-15	0	0	0	0	3	0	0
16-17	0	0	0	0	0	0	0
18-19	0	0	0	0	0	0	0
20-21	0	0	0	0	0	0	0

HEIGHT (INCH)	PERIOD (SECONDS)					
	0-5	6-10	11-15	16-20	21-25	26-30
0-5	0	2	0	1	0	0
6-10	28	13	3	0	0	0
11-15	8	7	8	7	1	0
16-20	1	2	4	4	0	0
21-25	0	0	1	0	1	0
26-30	0	0	0	0	0	0
31-35	0	0	0	0	0	0
36-40	0	0	0	0	0	0

[illegible][illegible][illegible]

MEASUREMENT (STEPS)	PERIOD (SECONDS)					
	0-5	6-10	11-15	16-20	21-25	26-30
0-5	2	+	0	+	0	1
1-5	0	1	0	1	1	0
6-10	4	1	7	2	1	+
11-15	2	6	0	3	1	1
16-20	+	5	7	4	1	+
21-25	0	+	1	1	+	0
26-30	0	0	+	0	1	0
>30	0	0	+	0	0	+

HEIGHT (INCH)	PERIOD (SECONDS)					
	0-5	6-7	8-9	10-11	12-13	14-15
0-4.5	1	0	1	0	0	0
4.5-5	14	11	9	1	0	0
5-5.5	5	12	11	2	0	1
5.5-6	1	9	4	6	0	0
6-6.5	0	2	5	2	0	2
6.5-7	0	3	0	3	1	0
7-7.5	0	0	0	0	1	0
7.5-8	0	0	0	0	0	0

HEIGHT (INCH)	PERIOD (SECONDS)					
	<0	0-7	8-10	10-12	12-15	15+
0-10	2	0	0	0	0	0
1-10	2	6	3	0	0	1
10-20	8	10	8	2	8	0
20-30	9	10	5	2	3	1
30-40	2	3	5	2	0	0
40-50	0	0	2	1	0	0
50-60	0	0	0	3	0	0
60-70	0	0	0	0	0	0

PERIOD (SECONDS)	29					
	0-5	5-10	10-15	15-20	20-25	25-30
0-5	1	0	0	0	0	0
5-10	10	0	0	1	0	3
10-15	3	13	0	1	0	2
15-20	1	5	0	5	1	1
20-25	1	1	5	5	1	1
25-30	0	1	1	1	1	0
0-5-30	0	0	0	0	1	0
ALL	0	0	0	0	0	0

**INSUFFICIENT
DATA**

INSUFFICIENT DATA

INSUFFICIENT DATA

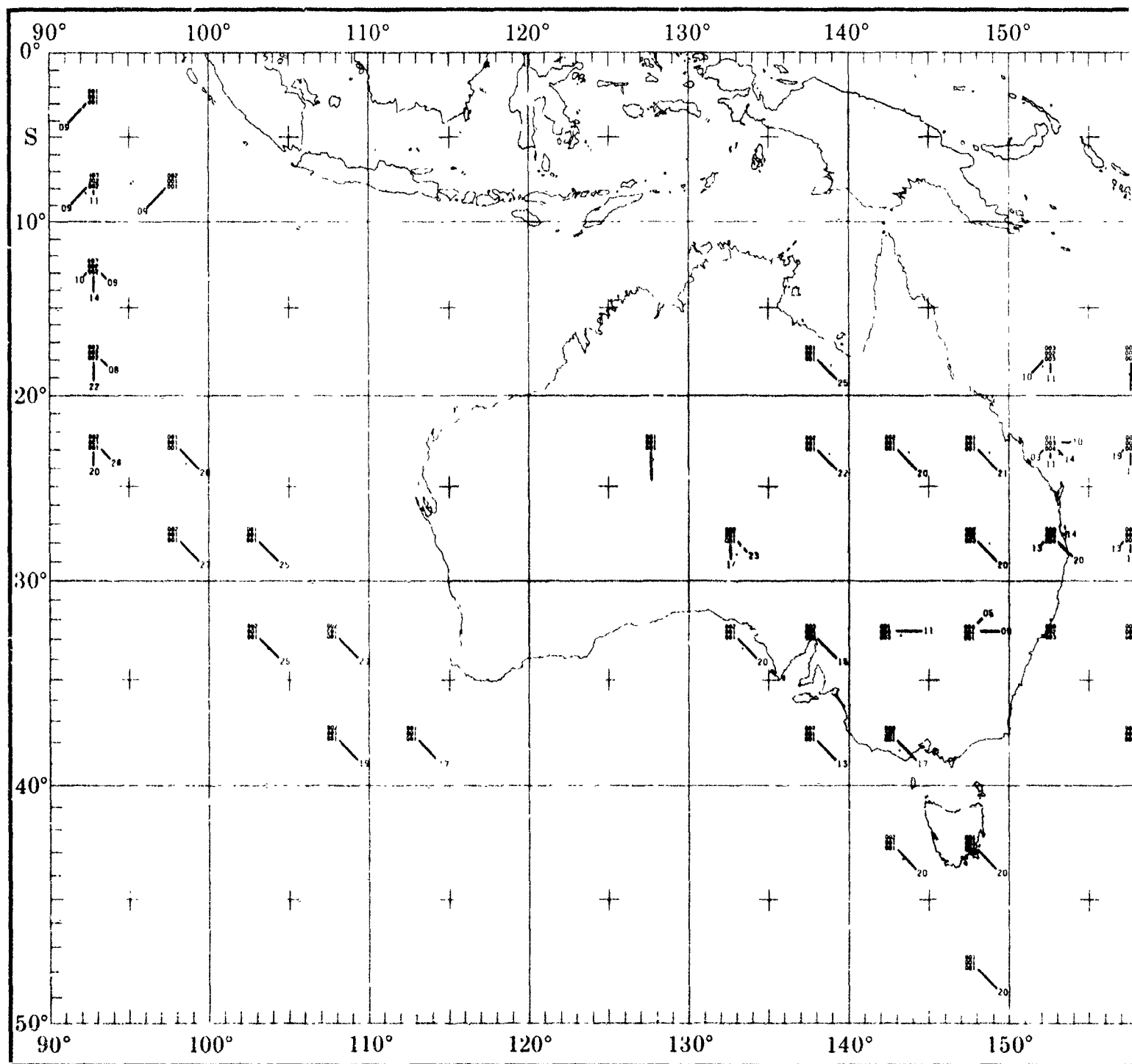
INSUFFICIENT DATA

JULY

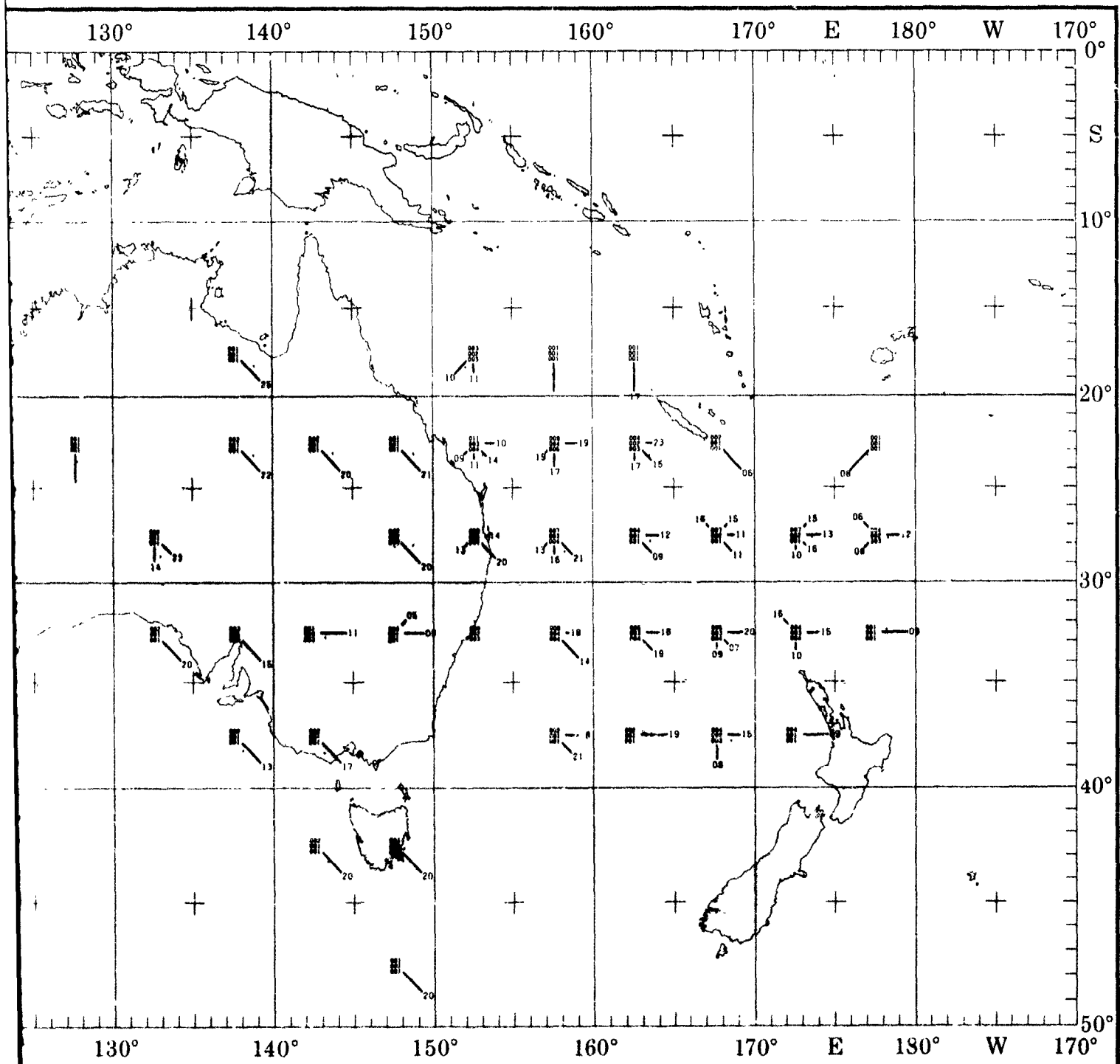
**INSUFFICIENT
DATA**

195

JULY



TROPICAL CYCLONE

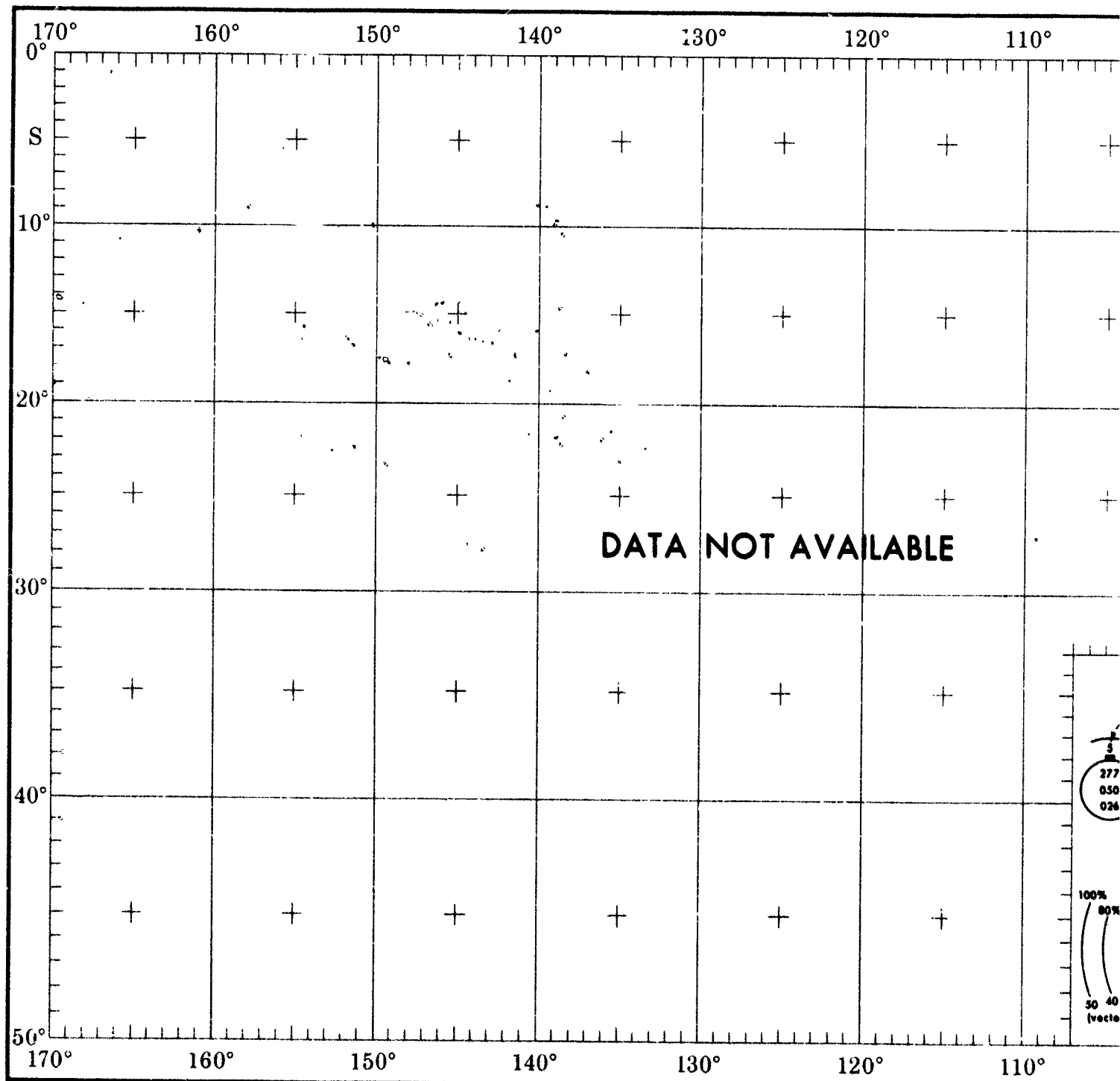


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1

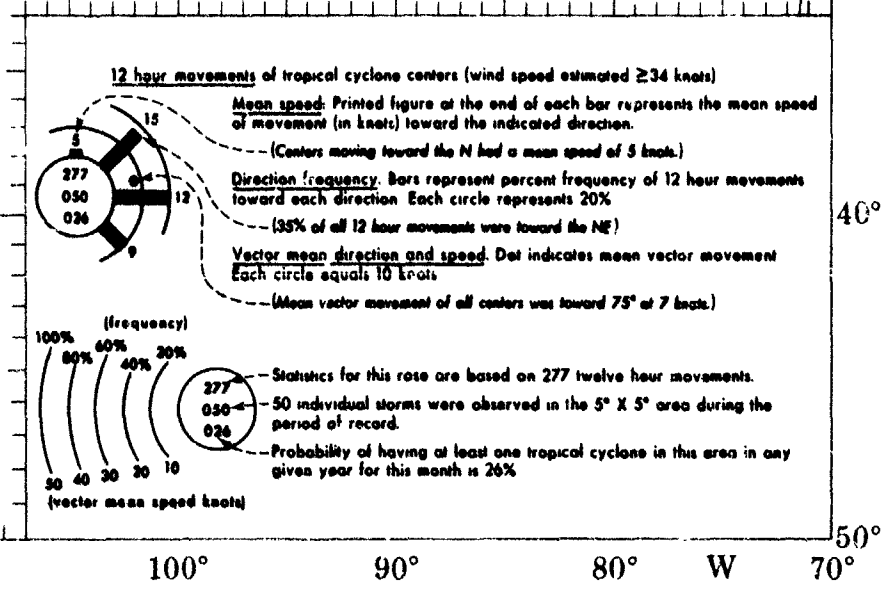
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TROPICAL CYCLONE

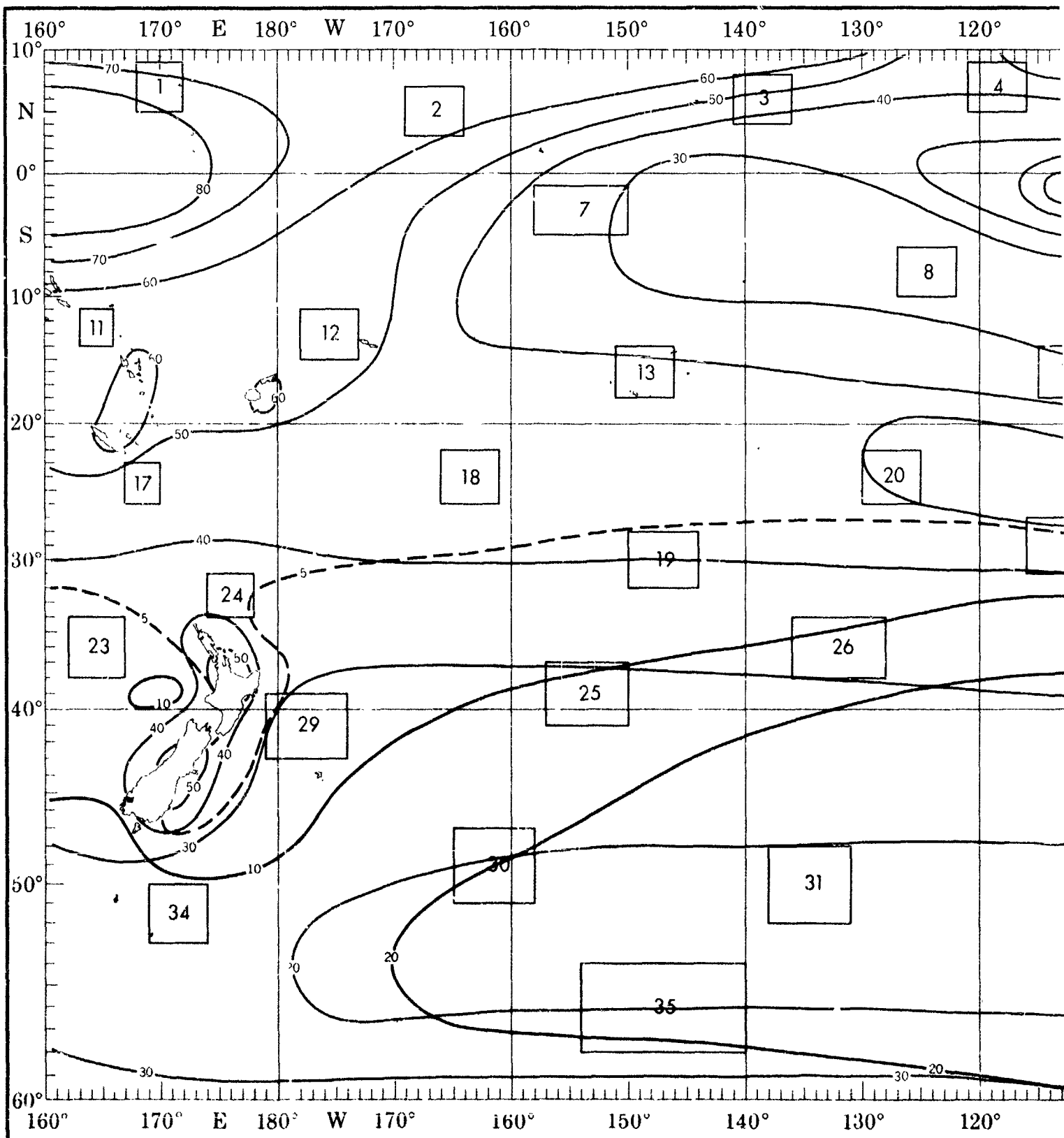


JULY

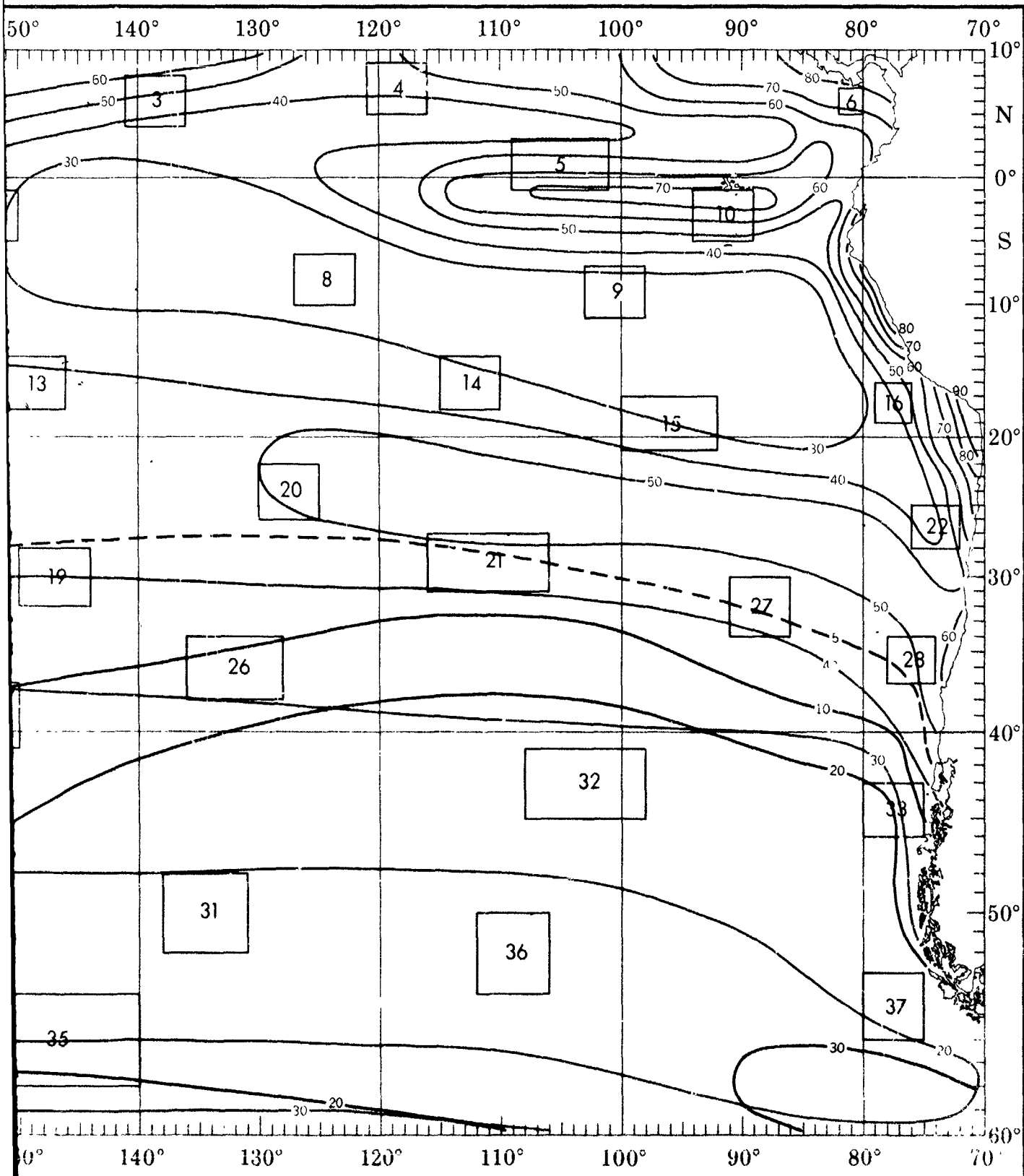
DATA NOT AVAILABLE



AUGUST

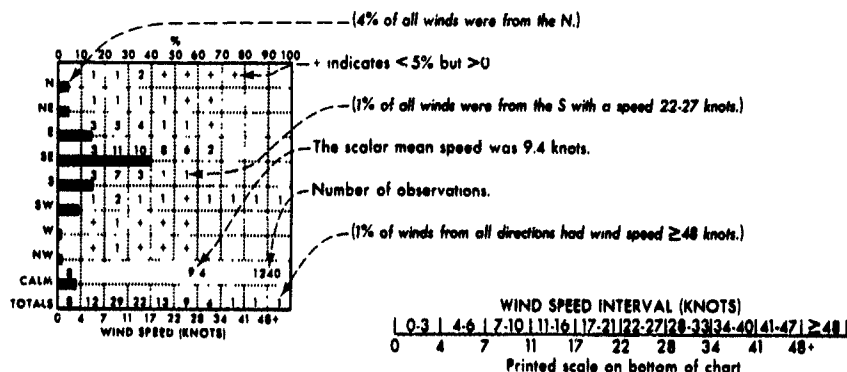


SURFACE WINDS



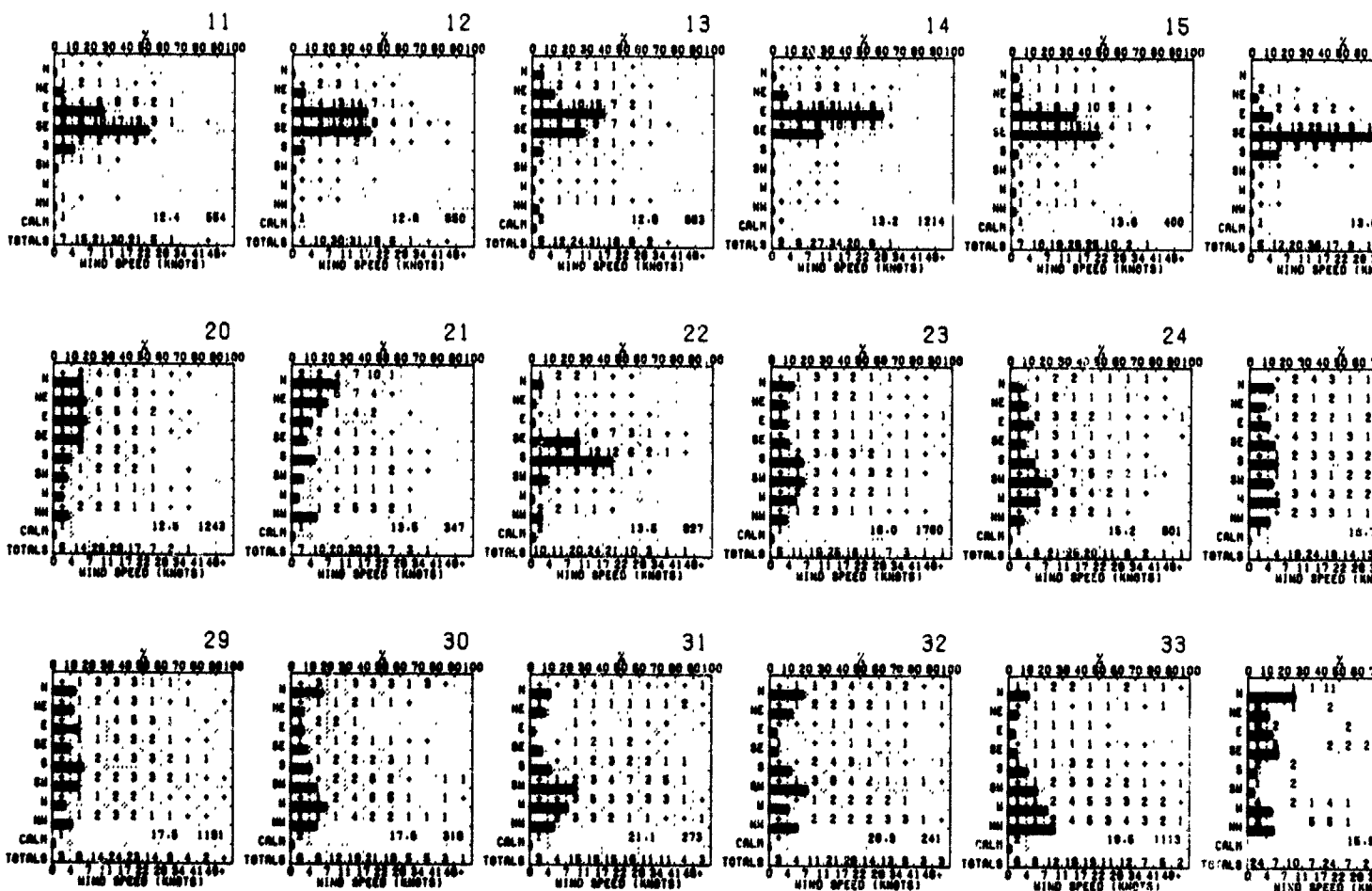
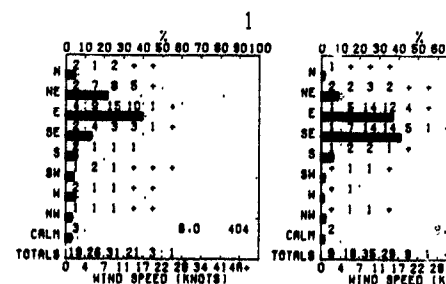
WIND DIRECTION AND SPEED

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

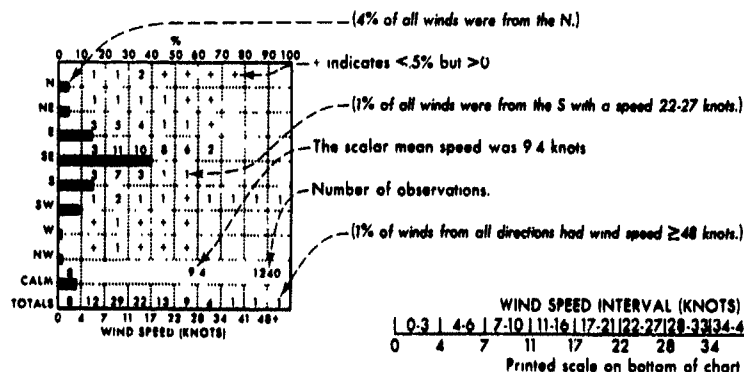
RED LINE - Percent frequency of wind speed ≥ 34 knots



Graphs represent the objective compilation of available data for specified areas without The isopleth analyses (opposite page) are based on all available data subjectively adjusted

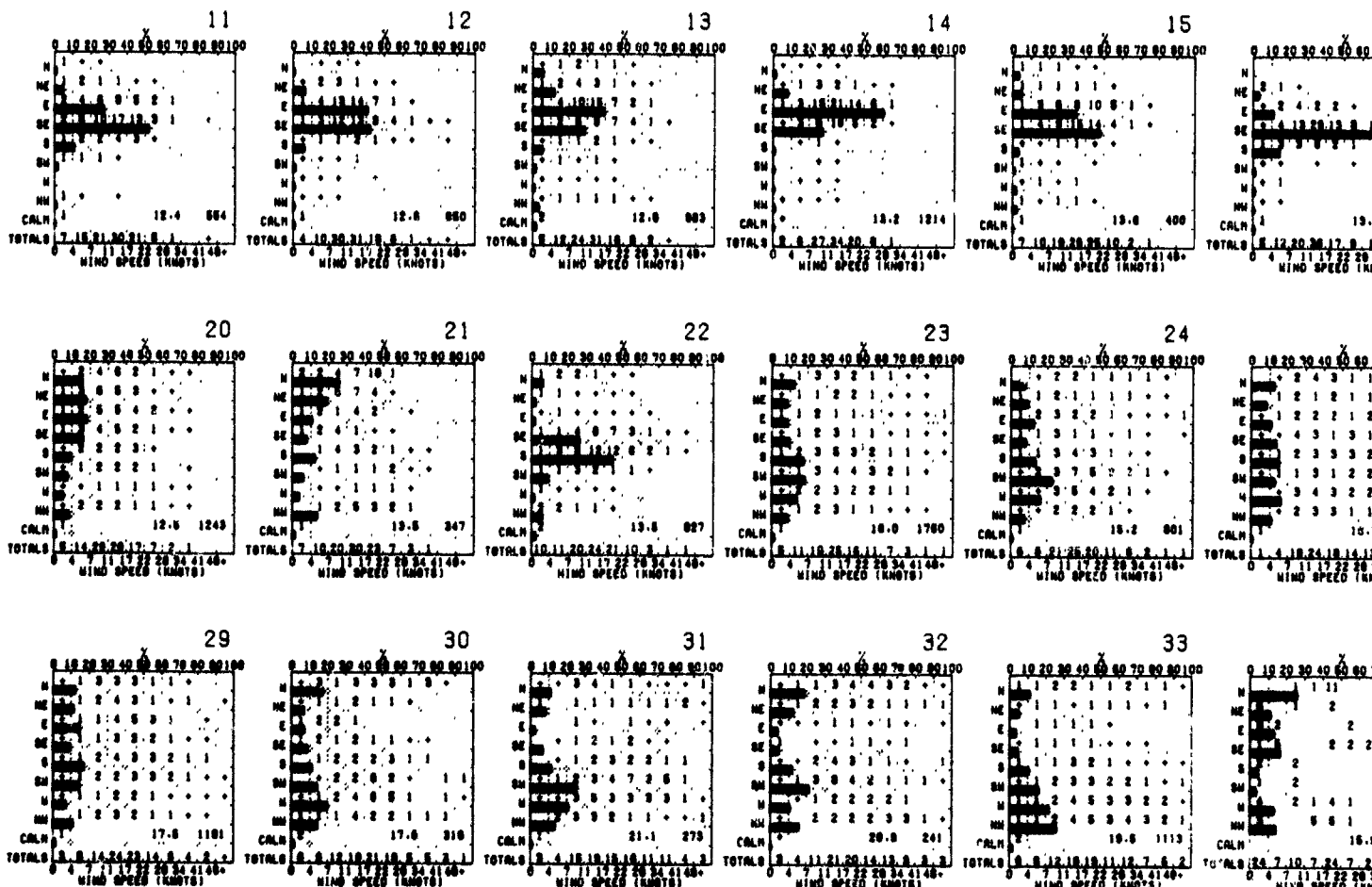
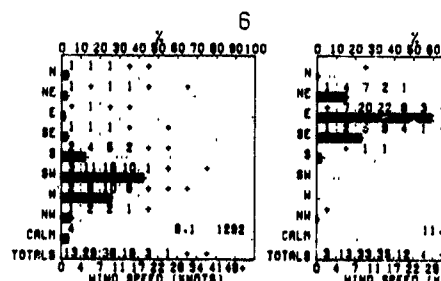
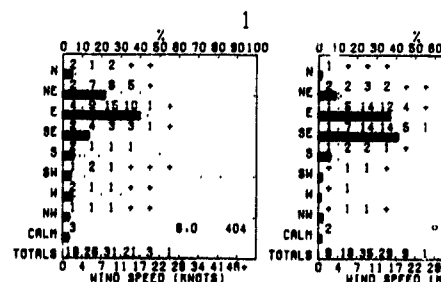
WIND DIRECTION AND SPEED

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale) Printed figures represent percent frequency of wind speeds observed from each direction



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots



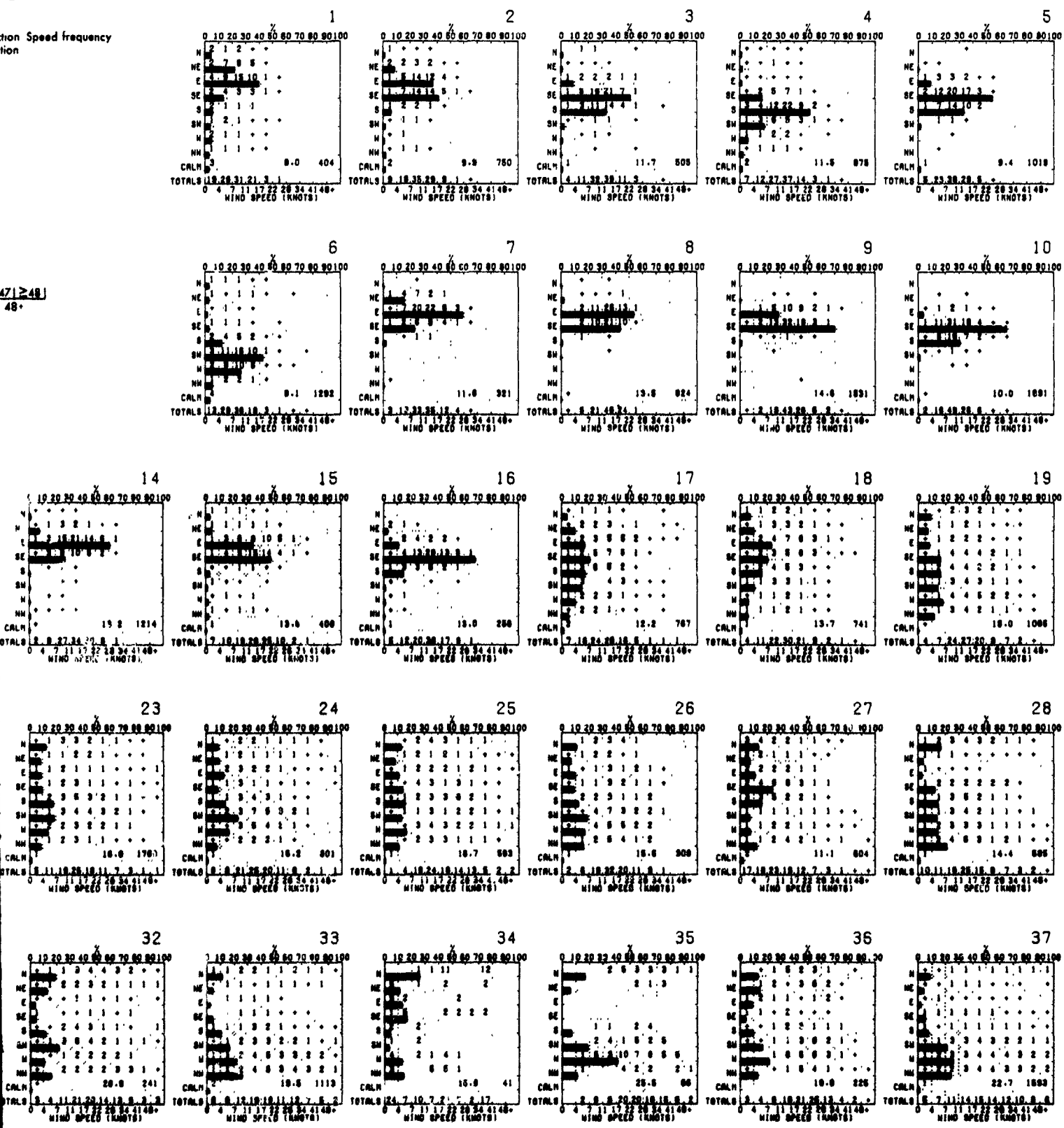
Graphs represent the objective compilation of available data for specified areas without The isopleth analyses (opposite page) are based on all available data subjectively adjusted

SPEED

AUGUST

ection Speed frequency
ction

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48

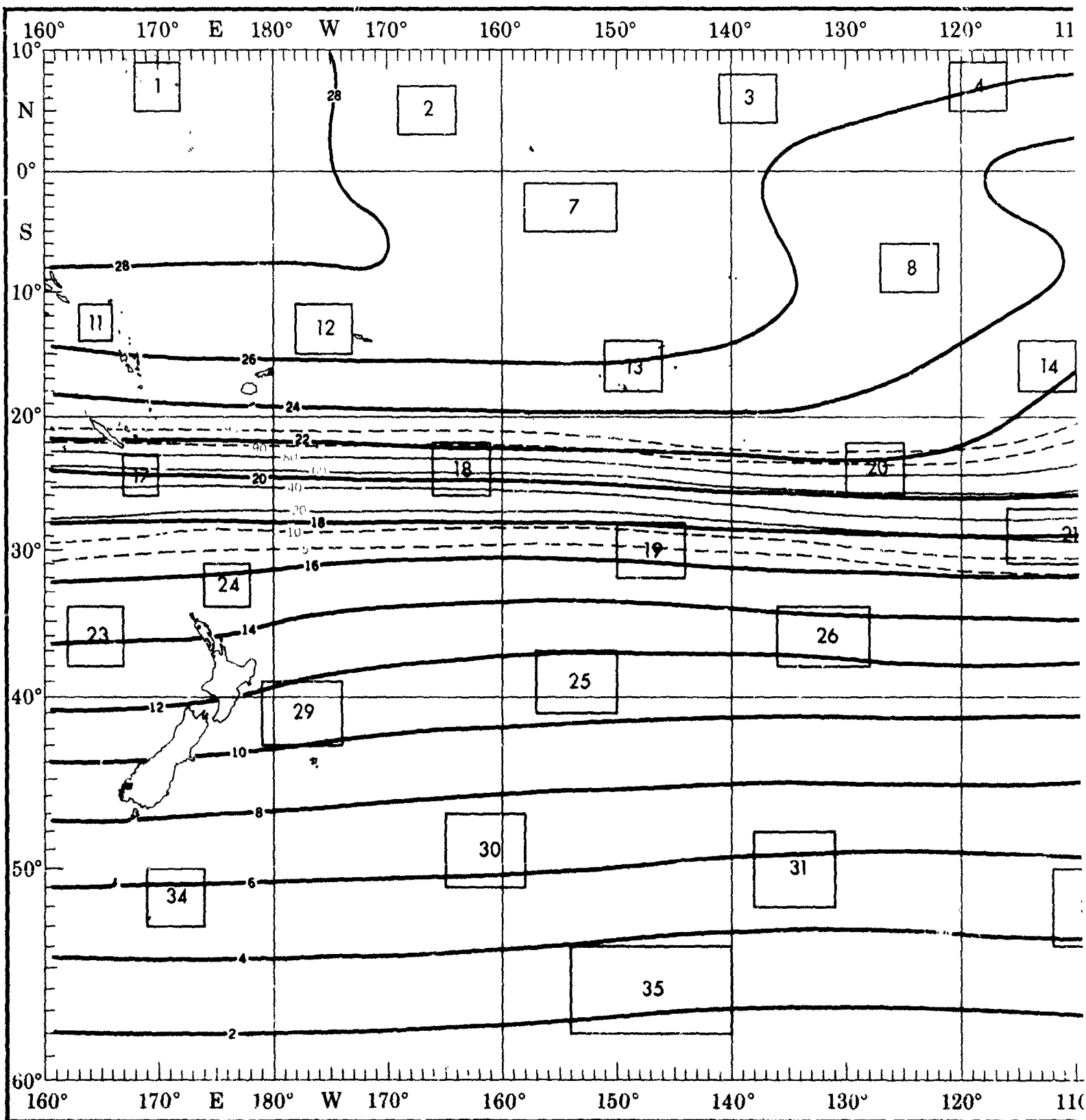


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

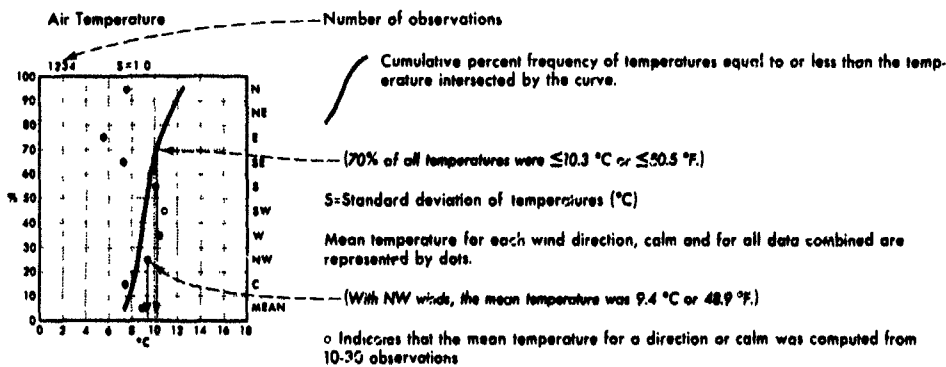
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SURF



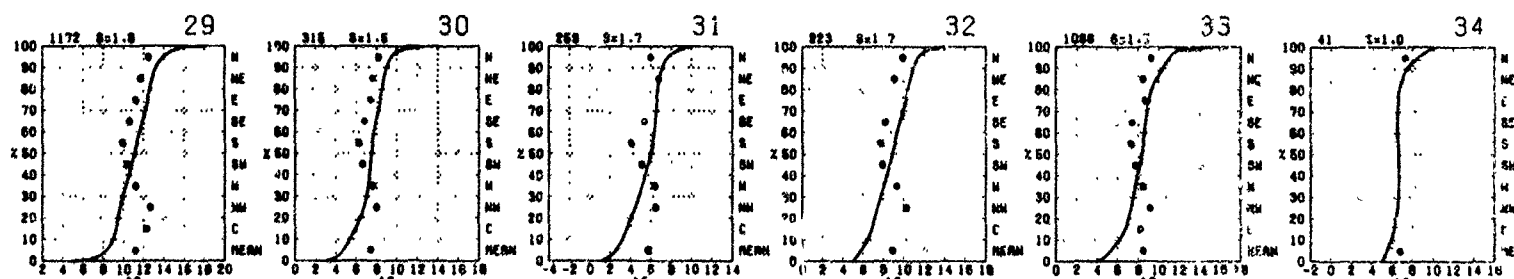
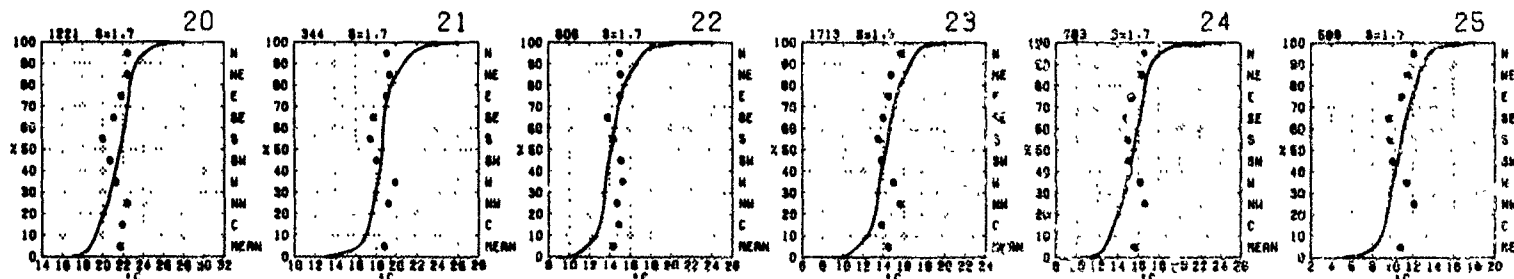
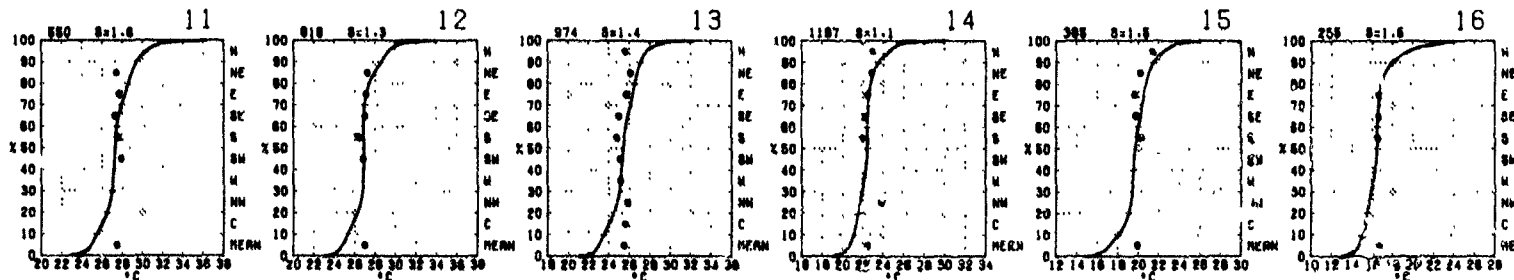
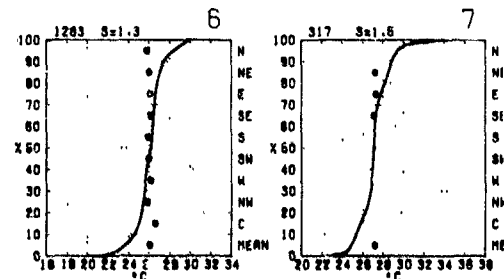
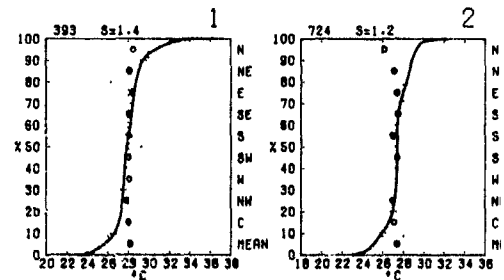
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^{\circ}\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^{\circ}\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

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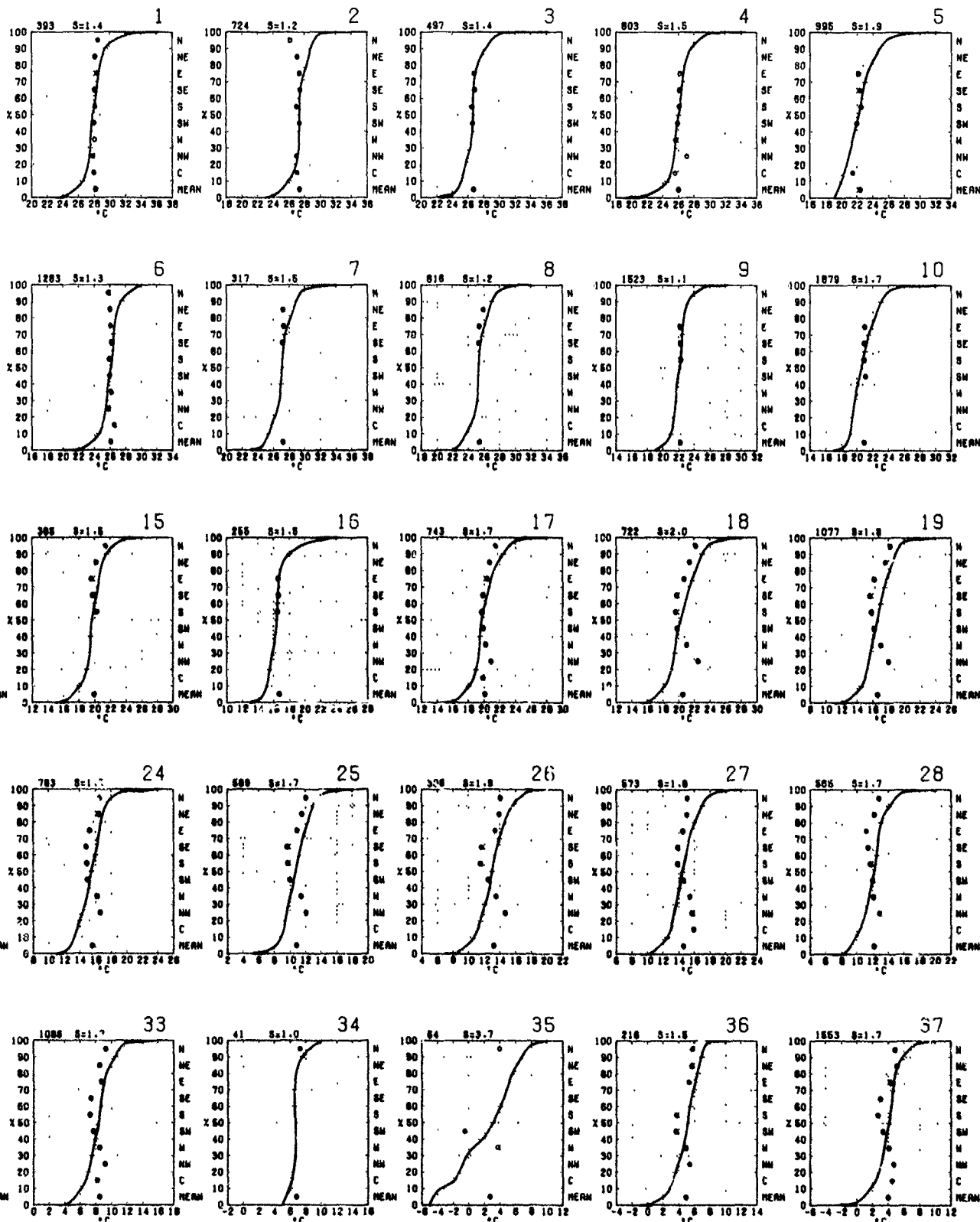
equal to or less than the temp-

or all data combined are

9 °F.)

calm was computed from

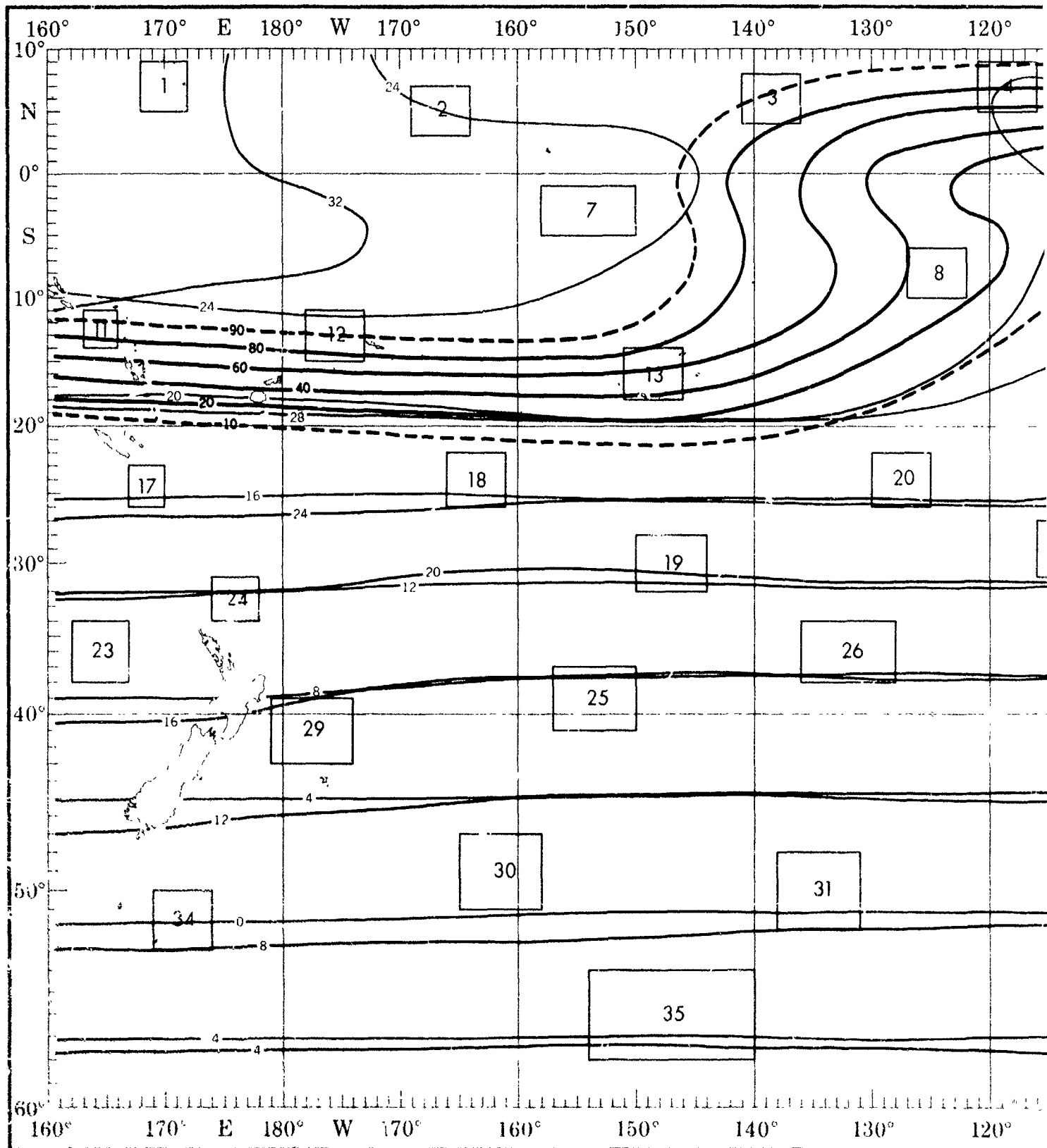
available



the objective compilation of available data for specified areas without regard to suspected biases.
 ses (opposite page) are based on all available data subjectively adjusted where bias was evident.

AUGUST

TEMPERATURE E



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

WIND SPEED (kts)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates <5% but >0

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

393

BLACK LINE - Percent frequency of T-H index $\geq 24^{\circ}\text{C}$ (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

1320

WIND SPEED (KTS) 11

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

550

WIND SPEED (KTS) 12

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

621

WIND SPEED (KTS) 13

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

678

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

1200

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

385

20

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

1247

21

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

344

22

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

81

23

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

1725

24

WIND SPEED (KTS)

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	0	0	0	0	0
32.33	0	0	0	0	0
30.31	0	0	0	0	0
28.27	0	0	0	0	0
26.23	0	0	0	0	0
24.20	0	0	0	0	0
22.17	0	0	0	0	0
20.13	0	0	0	0	0
18.10	0	0	0	0	0
16.06	0	0	0	0	0
14.03	0	0	0	0	0
12.00	0	0	0	0	0
10.00	0	0	0	0	0
8.00	0	0	0	0	0
6.00	0	0	0	0	0
4.00	0	0	0	0	0
2.00	0	0	0	0	0
0.00	0	0	0	0	0

705

AUGUST

and wind speed

of 22 33 kts)

ed in the test

(heat)

the given value)

len value)

1										2										3										4										5									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34	TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34								
34.36	+	0	0	0	0	32.33	+	0	0	0	0	34.36	0	+	0	0	0	32.33	0	+	0	0	0	34.36	0	+	0	0	0	32.33	0	0	+	0	0	32.33	0	0	+	0	0								
32.33	1	1	1	0	0	30.31	+	1	1	0	0	32.33	0	+	0	0	0	30.31	+	1	1	0	0	32.33	0	+	1	1	0	30.31	0	+	+	0	0	30.31	0	+	+	0	0								
30.31	3	5	2	0	0	28.28	4	21	17	1	0	30.31	0	1	1	0	0	28.28	1	6	5	+	0	30.31	0	1	6	5	+	0	28.28	+	1	+	0	0	30.31	0	+	+	0	0							
28.28	10	34	16	+	0	26.27	4	28	19	+	0	28.28	1	6	11	1	0	26.27	2	21	32	2	+	28.28	0	2	21	32	2	+	26.27	0	2	3	0	0	28.28	0	2	3	0	0							
26.27	6	15	5	1	0	24.26	1	+	1	+	0	26.27	3	30	34	1	0	24.26	3	9	12	1	0	26.27	0	3	9	12	1	0	24.26	+	10	10	+	0	26.27	0	+	10	10	+	0						
24.26	0	1	1	0	0	22.23	0	+	0	0	0	24.26	+	4	5	+	0	22.23	0	1	1	+	0	24.26	0	1	1	+	0	22.23	1	26	14	0	0	24.26	1	26	14	0	0								
22.23	0	0	0	0	0	20.21	0	0	0	0	0	22.23	0	+	+	0	0	20.21	0	+	1	0	0	22.23	0	0	+	1	0	0	20.21	3	19	7	0	0	22.23	0	0	+	1	0	0						
20.21	0	0	0	0	0	18.19	0	0	0	0	0	20.21	0	0	0	0	+	0	18.19	0	0	0	0	20.21	0	0	0	0	0	18.19	1	3	+	0	0	20.21	0	0	0	0	0								
18.19	0	0	0	0	0	16.17	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	18.19	0	0	0	0	0	16.17	0	0	0	0	0	18.19	0	0	0	0	0								
16.17	0	0	0	0	0	14.16	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	16.17	0	0	0	0	0	14.16	0	0	0	0	0	16.17	0	0	0	0	0								
14.16	0	0	0	0	0	12.13	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	14.16	0	0	0	0	0								
					393						733												499																804					1000					

[illegible]

14										15										16										17										18										19									
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34												
26.28	0	0	+	0	0	26.27	0	+	0	0	0	26.23	0	2	+	0	0	26.27	0	+	+	0	0	26.26	0	0	+	0	0	26.28	0	0	+	0	0	26.23	0	+	+	+	0	26.26	0	+	+	+	0												
26.27	+	+	1	+	0	26.26	0	1	0	0	0	26.21	0	2	+	0	0	26.25	+	1	1	0	0	26.27	+	+	1	0	0	26.27	+	+	1	0	0	26.21	+	1	1	0	0	26.21	+	1	1	0	0												
24.26	+	7	7	1	0	22.23	2	4	5	1	0	20.18	1	5	7	3	0	22.23	1	8	7	1	+	22.23	1	8	7	1	+	22.23	1	8	7	1	+	20.21	3	15	19	2	1	20.18	1	7	12	4	1												
22.23	2	24	38	+	0	20.21	3	15	21	8	+	16.17	3	20	38	7	0	22.23	1	8	12	2	+	20.21	3	15	19	2	1	22.23	1	8	12	2	+	16.17	2	16	22	7	1	16.17	2	16	22	7	1												
20.21	+	4	7	1	0	18.18	2	9	23	4	+	14.16	1	3	7	+	0	20.21	1	1	18	5	1	18.18	1	9	15	4	+	20.21	1	1	18	5	1	14.16	1	8	11	4	1	14.16	1	8	11	4	1												
18.18	0	+	+	0	0	16.17	0	1	2	+	0	12.13	0	+	0	0	0	18.17	1	1	2	+	0	10.11	0	+	0	0	0	10.11	0	+	0	0	0	10.11	0	+	0	0	0	10.11	0	+	0	0	0												
16.17	0	0	0	0	0	14.16	0	0	+	0	0	10.11	0	0	0	0	0	16.17	0	+	0	0	0	14.16	0	0	3	2	+	14.16	0	0	3	2	+	10.11	0	+	0	0	0	10.11	0	+	0	0	0												
14.16	0	0	0	0	0	12.13	0	0	0	0	0	8.0	0	0	0	0	0	14.16	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0												
12.13	0	0	0	0	0	10.11	0	0	0	0	0	6.7	0	0	0	0	0	12.13	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0	0	0	0	0	8.0	0	0	0	0	0	8.0	0	0	0	0	0												
10.11	0	0	0	0	0	8.0	0	0	0	0	0	4.8	0	0	0	0	0	10.11	0	0	0	0	0	8.0	0	0	0	0	0	8.0	0	0	0	0	0	4.8	0	0	0	0	0	4.8	0	0	0	0	0												
8.0	0	0	0	0	0	6.7	0	0	0	0	0	2.9	0	0	0	0	0	8.0	0	0	0	0	0	6.7	0	0	0	0	0	6.7	0	0	0	0	0	0.0	0	0	0	0	0	0.0	0	0	0	0	0												

Figure 1 displays six weather data tables for stations 1726, 788, 596, 310, 873, and 585. Each table shows wind speed (KTS) and temperature (°C) over a 24-hour period. The data is presented in a grid format with columns for time (0-3, 4-10, 11-21, 22-24) and rows for specific times (20-21, 18-19, 16-17, 14-15, 12-13, 10-11, 8-9, 6-7, 4-5, 2-3, 0-1).

WIND SPEED (KTS) 23					WIND SPEED (KTS) 24					WIND SPEED (KTS) 25					WIND SPEED (KTS) 26					WIND SPEED (KTS) 27					WIND SPEED (KTS) 28									
°C	0-3	4-10	11-21	22-24	TEMP (°C)	0-3	4-10	11-21	22-24	TEMP (°C)	0-3	4-10	11-21	22-24	TEMP (°C)	0-3	4-10	11-21	22-24	TEMP (°C)	0-3	4-10	11-21	22-24	TEMP (°C)	0-3	4-10	11-21	22-24					
20-21	+	0	+	+	24.26	0	+	0	0	10-10	0	+	0	0	0	20-21	0	0	+	0	0	20-21	+	0	+	0	0	10-10	+	1	0	0	0	
18-19	+	2	2	1	22.23	0	+	+	0	0	10-7	0	+	0	1	+	10-10	0	1	1	0	0	10-10	+	1	3	+	+	10-17	0	1	1	+	0
16-17	7	7	10	5	20.21	+	+	+	+	14-16	+	1	2	1	0	10-17	+	1	7	1	0	10-17	5	9	8	2	+	10-15	6	9	8	2	+	
14-15	2	14	17	7	10-10	+	3	5	2	12-13	+	7	15	7	2	14-16	+	7	16	6	0	10-18	5	18	14	5	1	10-13	4	15	20	7	2	
12-13	2	7	11	5	10-17	3	11	20	7	2	10-11	1	9	16	11	5	12-13	2	13	9	1	10-11	5	10	6	2	0	10-11	2	9	11	4	1	
10-11	+	+	1	1	14-16	2	12	19	7	1	0-0	+	5	0	6	2	10-11	1	2	7	4	+	10-11	1	1	1	+	0	0-0	1	1	1	1	1
8-9	0	0	0	+	12-13	1	3	5	1	+	8-9	0	1	1	1	0	0-0	0	0	1	2	0	0-0	0	0	+	0	0	0-0	0	0	0	0	0
6-7	0	0	0	0	10-11	0	+	+	+	0	6-7	0	0	0	+	0	0-7	0	0	0	0	0	6-7	0	0	0	0	0	4-8	0	0	0	0	0
4-5	0	0	0	0	0-0	0	0	0	0	0	2-3	0	0	0	0	0	4-8	0	0	0	0	0	4-8	0	0	0	0	0	2-3	0	0	0	0	0
2-3	0	0	0	0	0-7	0	0	0	0	0	0-1	0	0	0	0	0	2-3	0	0	0	0	0	2-3	0	0	0	0	0	0-1	0	0	0	0	0
0-1	0	0	0	0	4-8	0	0	0	0	0	-2-1	0	0	0	0	0	0-1	0	0	0	0	0	0-1	0	0	0	0	0	-2-1	0	0	0	0	0

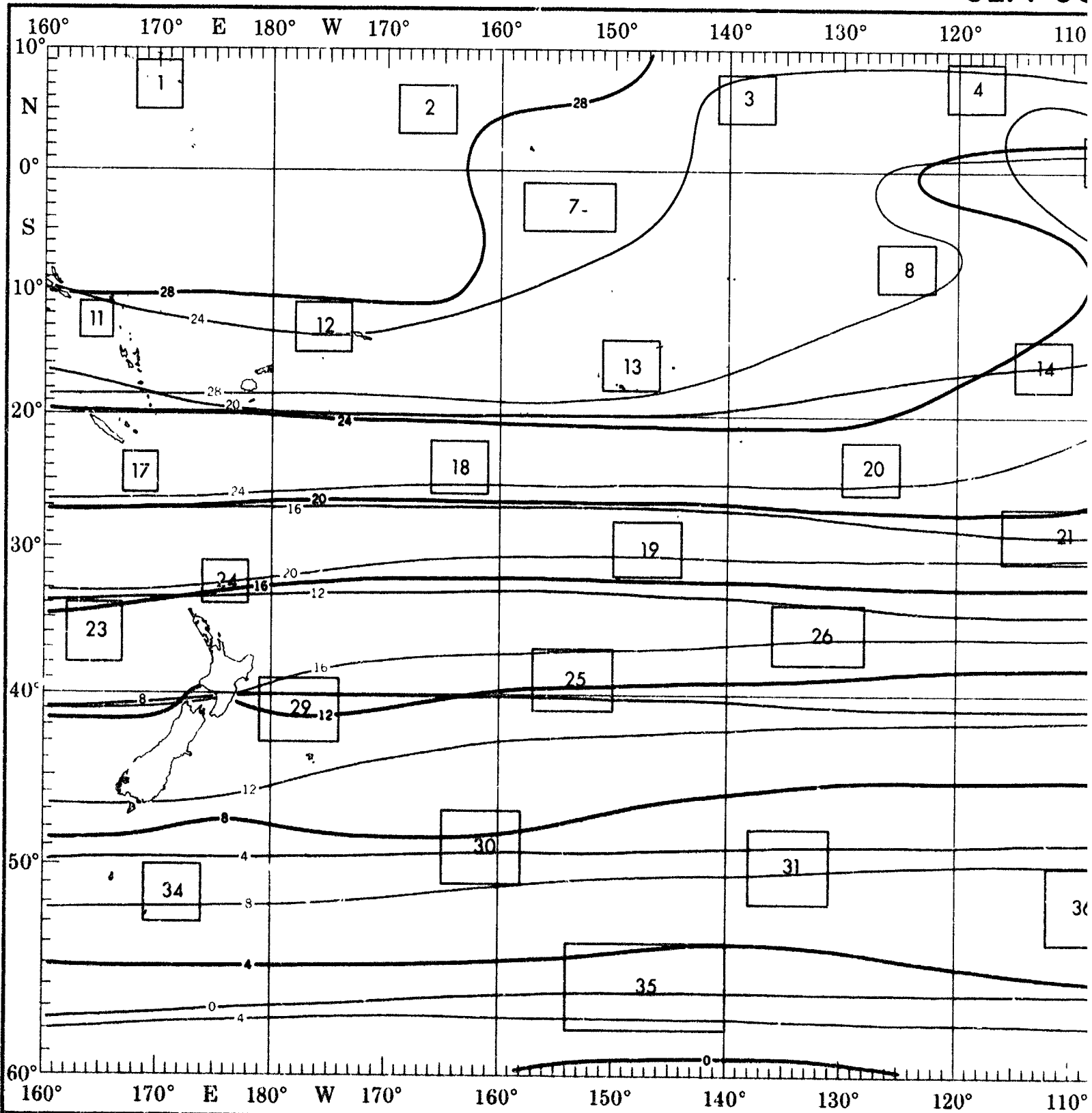
1726 788 596 310 873 585

32										33										34										35										36										37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)										WIND SPEED (KTS)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
(°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
12.13	+	1	1	1	1	10.17	0	0	+	0	0	8.0	0	7	10	0	5	10.11	0	0	0	0	2	2	6.0	0	0	0	0	0	10.11	0	0	0	+	0	10.11	0	0	0	+	0	6.0	+	+	+	+	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
10.11	+	5	13	12	6	14.18	0	+	+	+	0	6.7	24	7	20	7	12	6.0	0	0	0	0	0	6.7	1	5	17	15	2	6.0	+	+	+	+	1	6.0	+	+	+	+	1	6.7	+	+	+	+	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
6.0	1	7	14	9	5	12.19	+	1	1	+	+	6.6	0	2	2	2	0	6.7	0	6	11	2	3	6.7	0	6	17	17	2	6.7	+	2	4	4	6	6.7	+	2	4	4	6	6.7	+	2	4	4	6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
6.7	1	4	12	2	1	10.11	1	5	9	8	5	2.0	0	0	0	0	0	6.8	0	9	5	6	8	2.0	0	+	2	8	1	6.8	0	+	2	8	1	6.8	0	+	2	8	1	6.8	0	+	2	8	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
4.6	0	0	0	1	1	+	6.0	2	9	17	11	6	0.1	0	0	0	0	0	2.0	0	2	0	16	2	0.1	0	0	2	1	+	2.0	2	8	0	5	4	2.0	2	8	0	5	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
2.3	0	0	0	0	0	6.7	2	4	8	5	3	-2.1	0	0	0	0	0	0.1	0	0	2	5	3	-2.1	0	0	+	0	0	0.1	+	1	2	2	1	-2.1	+	1	2	2	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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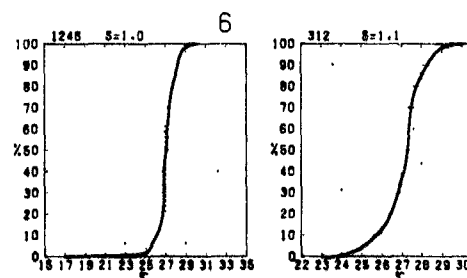
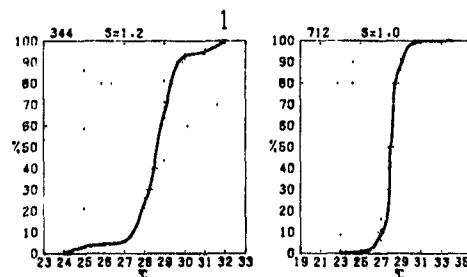
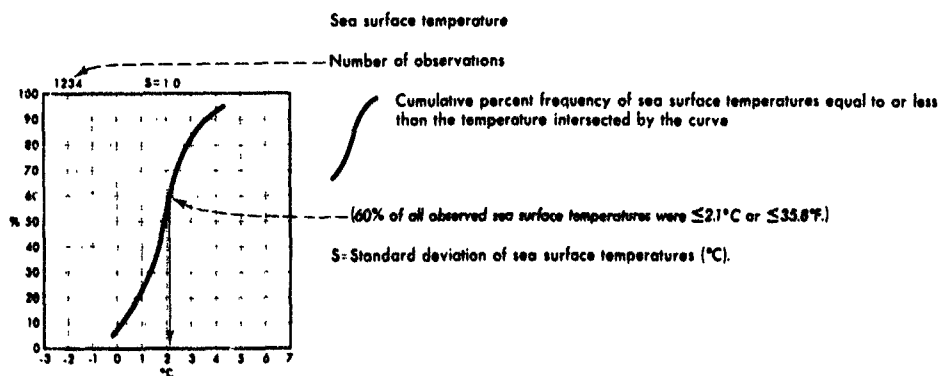
jective compilation of available data for specified areas without regard to suspected biases. (opposite page) are based on all available data subjectively adjusted where bias was evident.

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SEA SU



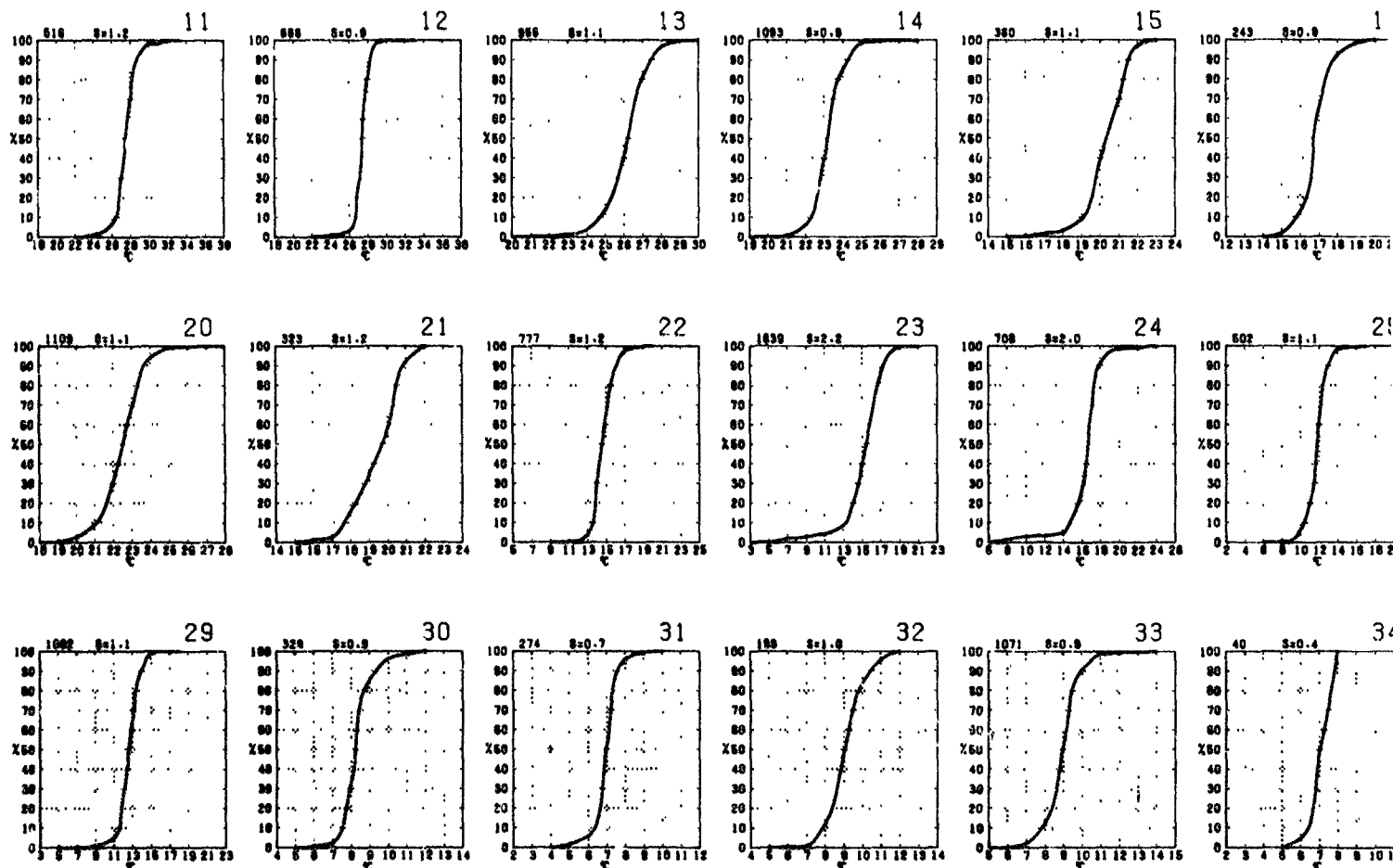
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without reg
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

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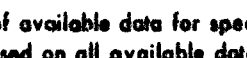
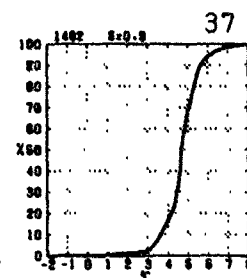
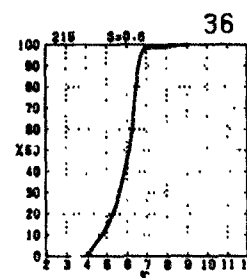
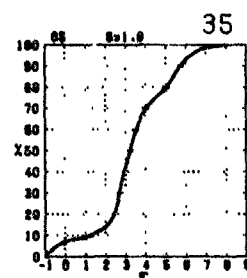
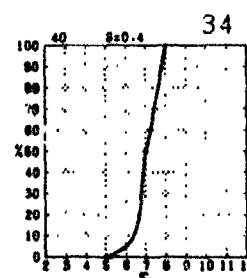
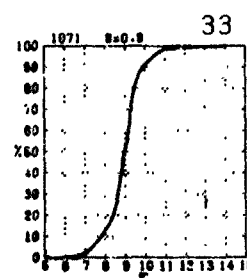
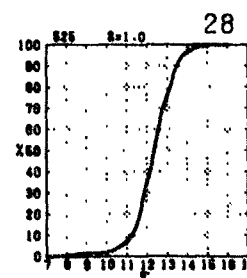
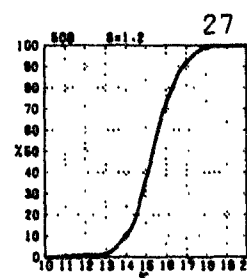
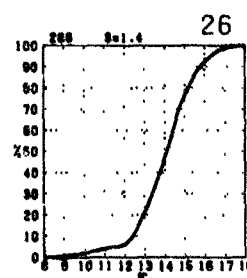
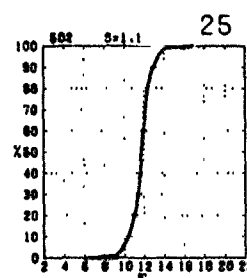
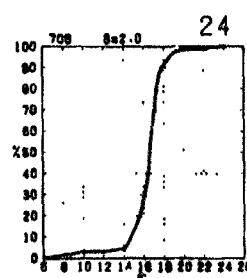
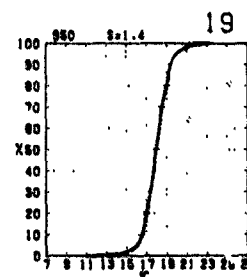
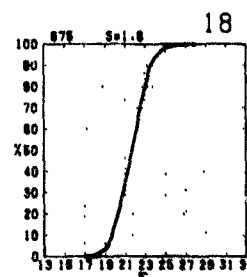
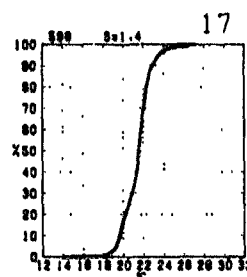
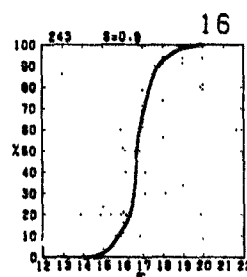
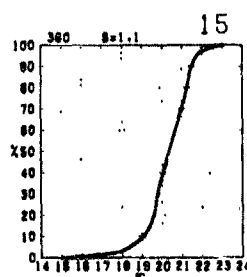
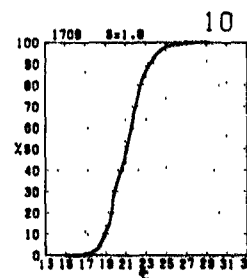
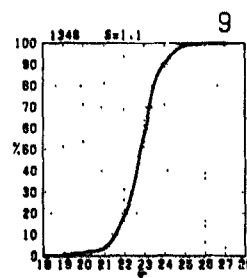
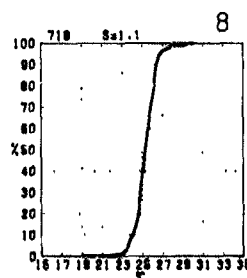
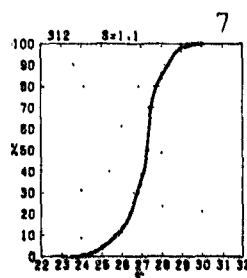
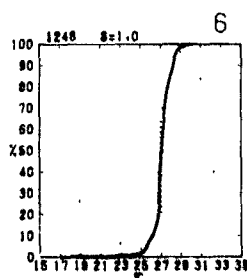
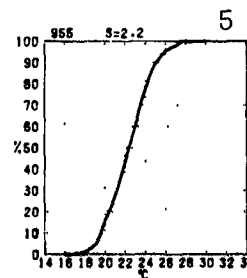
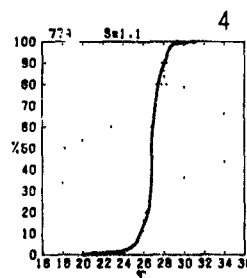
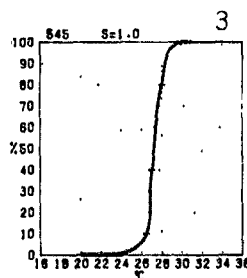
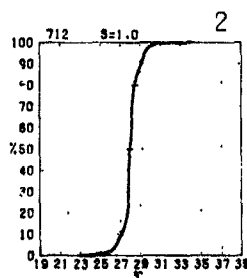
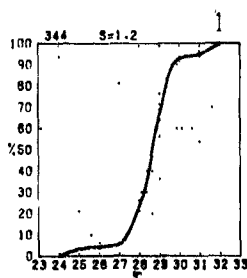
AUGUST

temperatures equal to or less

($\leq 35.8^{\circ}\text{F}$)

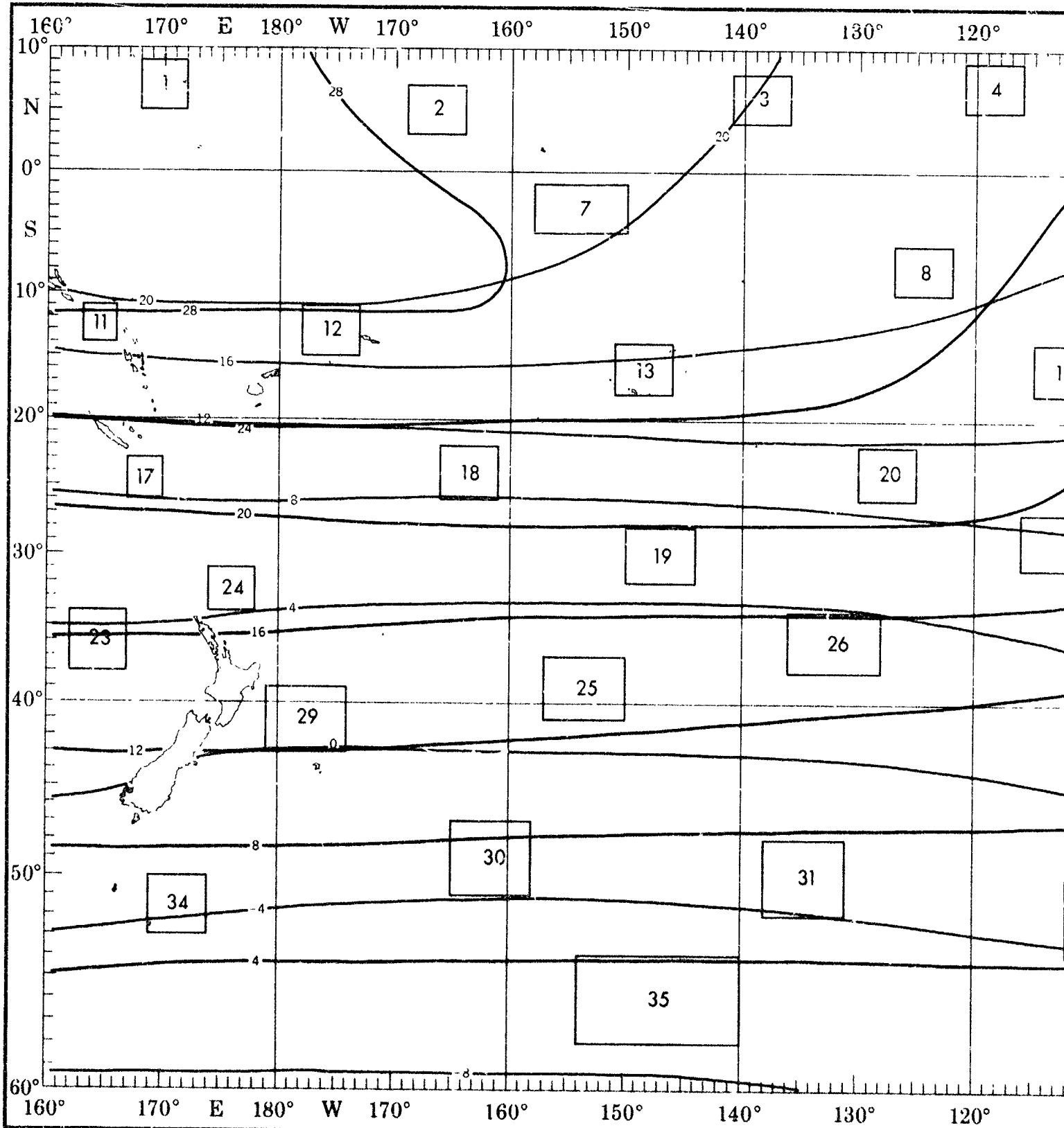
less than the given

(than the given value)

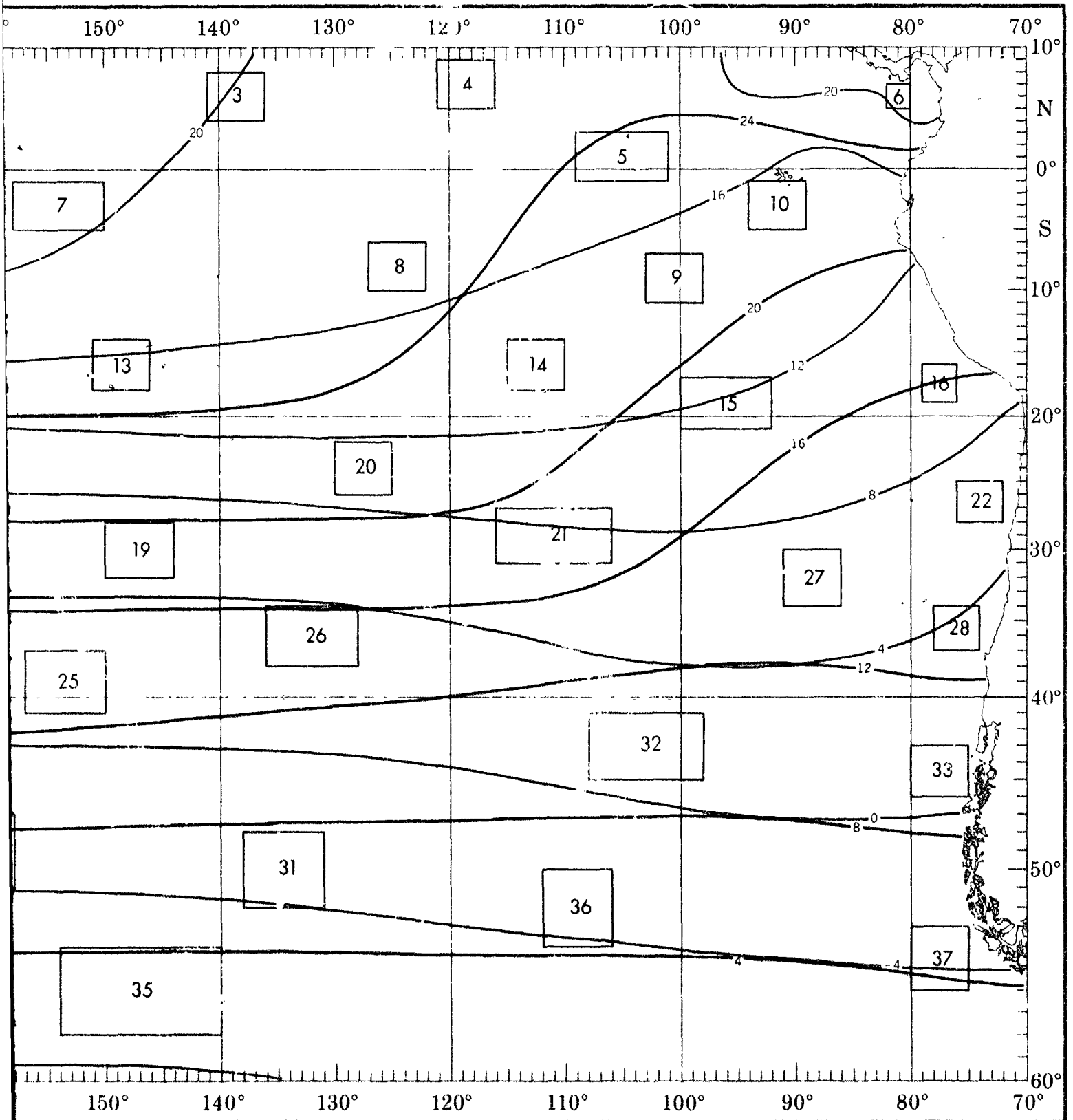


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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HUMIDITY



1

1

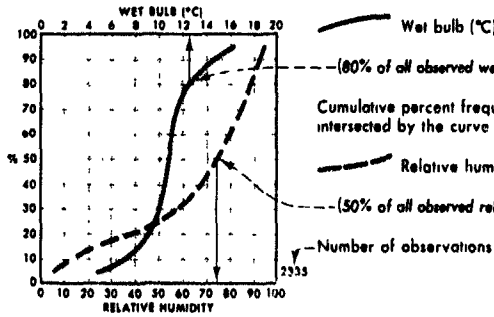
2

WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

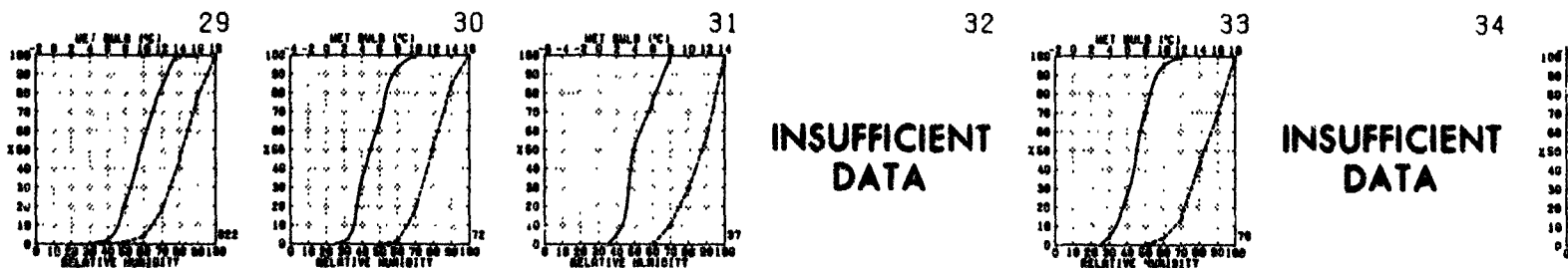
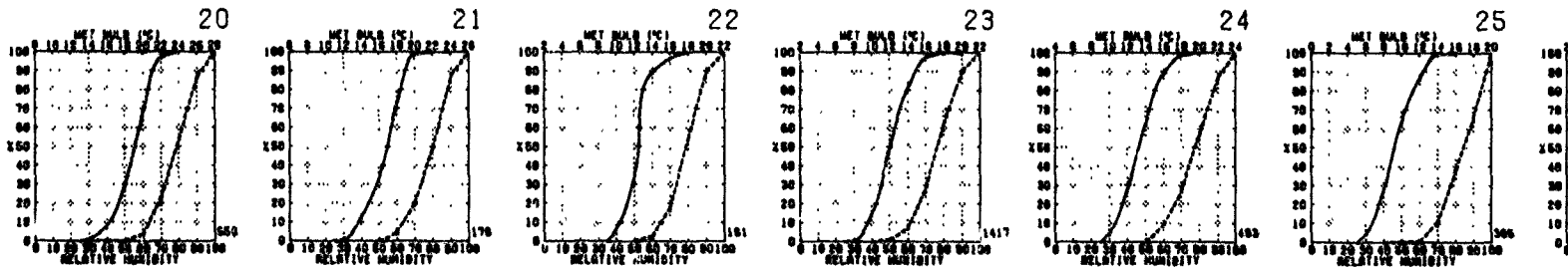
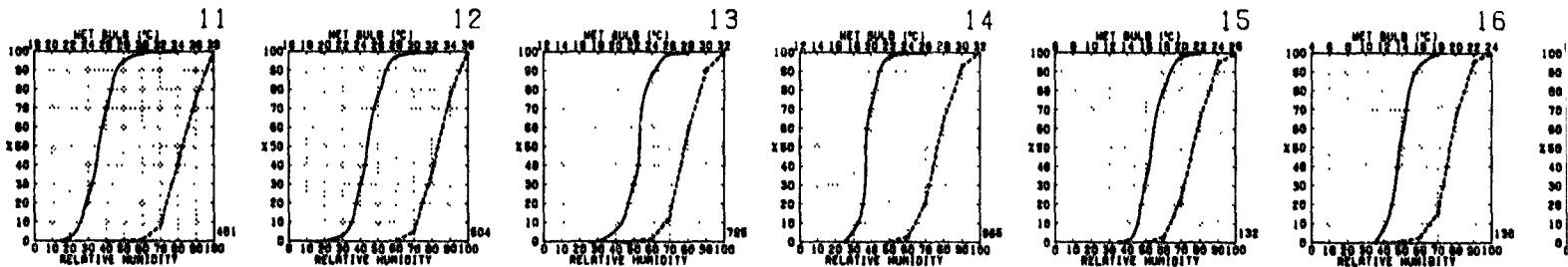
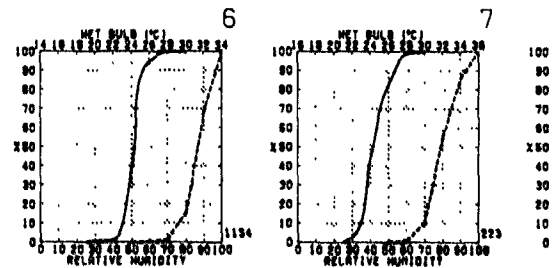
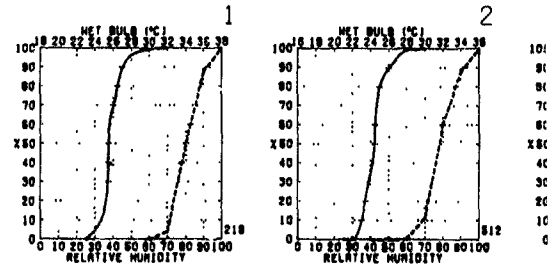
Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale)



BLUE LINE - Minimum (1%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



INSUFFICIENT DATA

INSUFFICIENT DATA

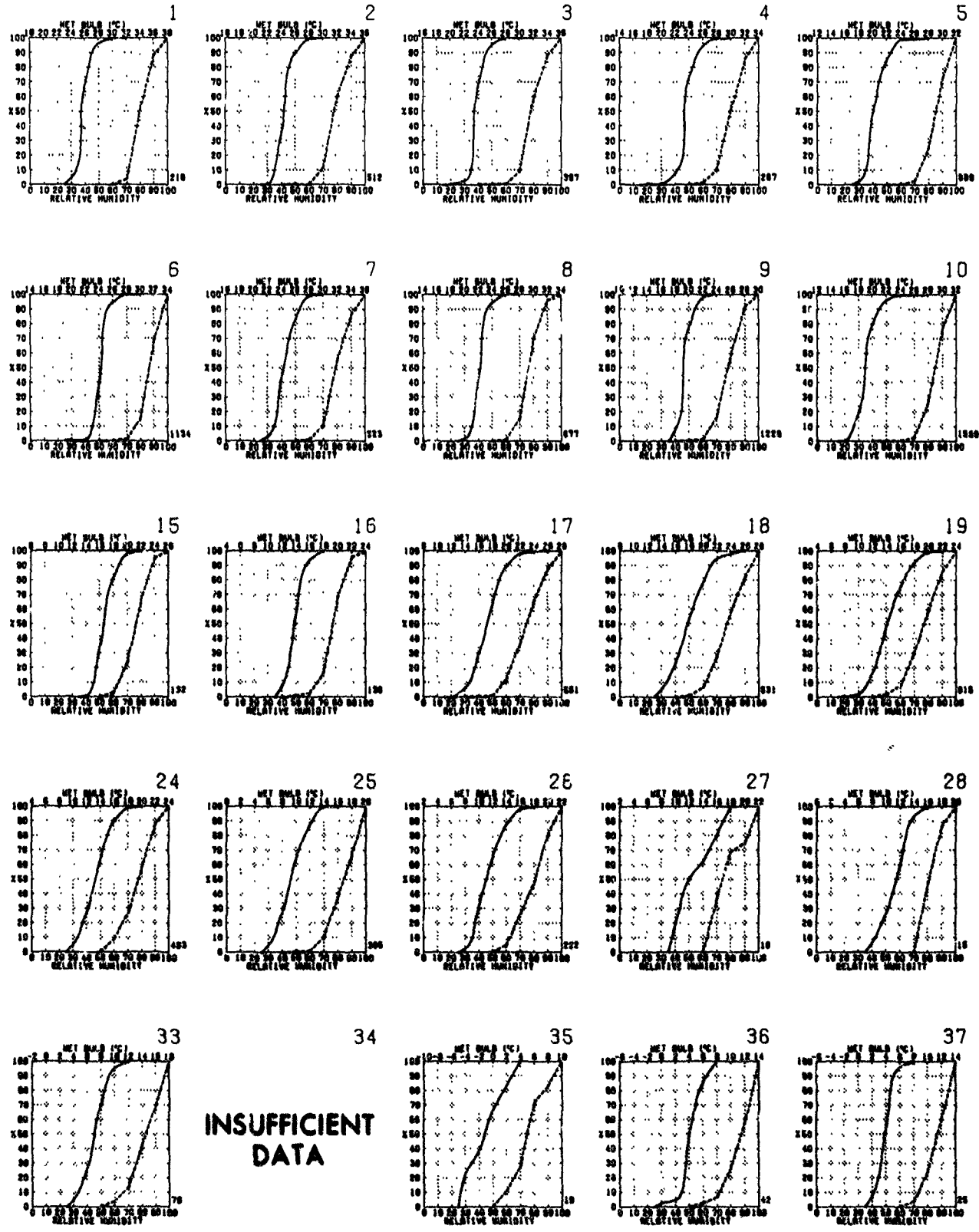
Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

VE HUMIDITY

AUGUST

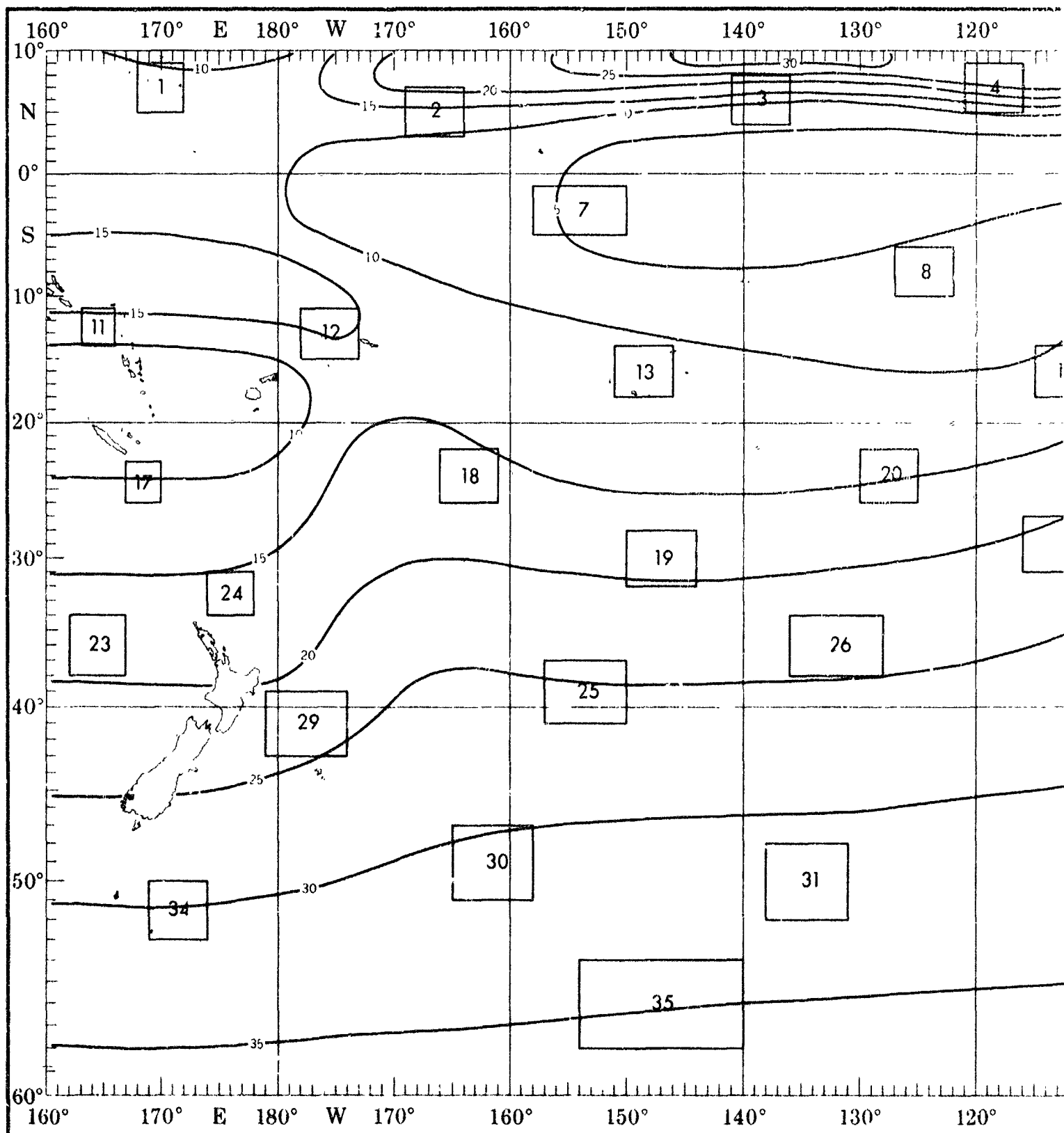
to or less than the
less than the humidity

less than the given
on the given value)

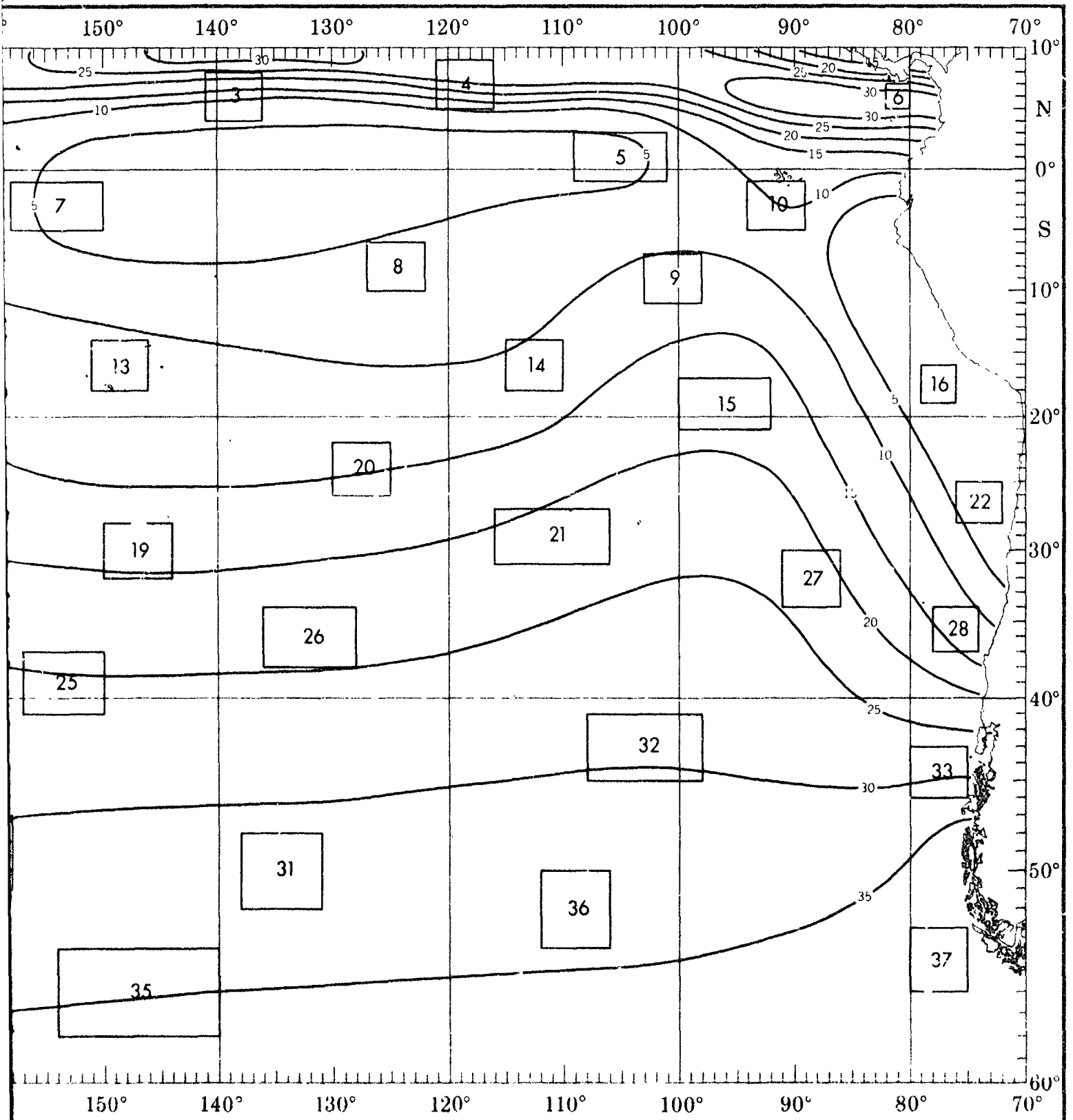


objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

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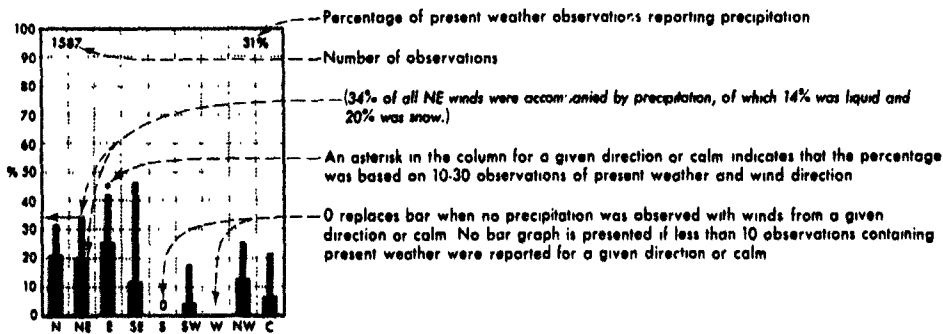
PRECIPITATION



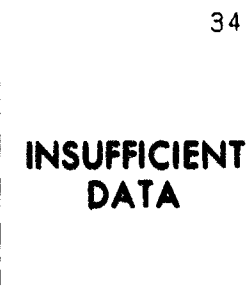
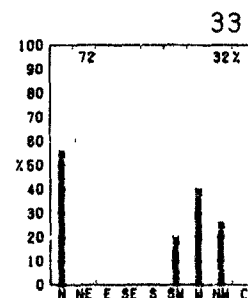
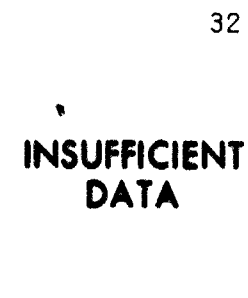
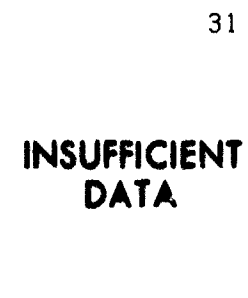
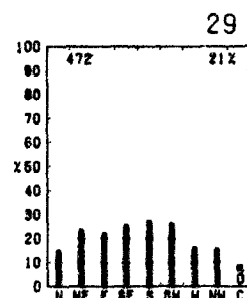
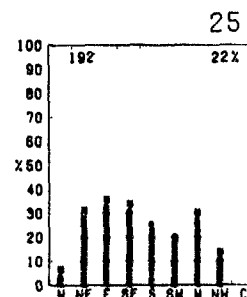
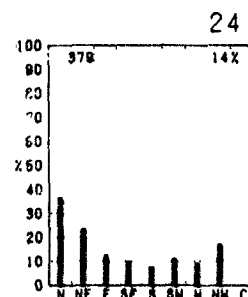
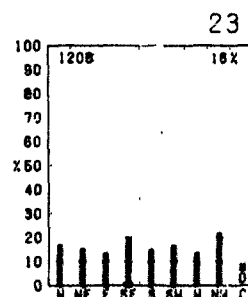
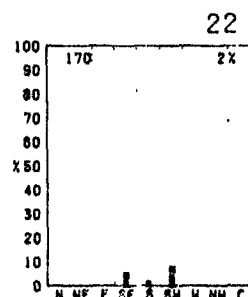
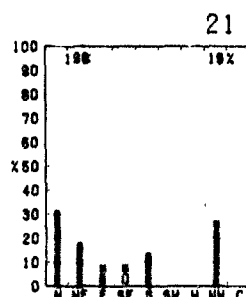
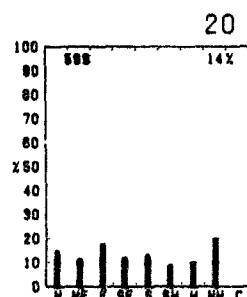
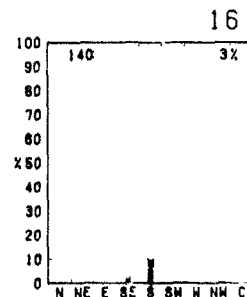
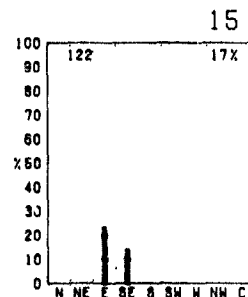
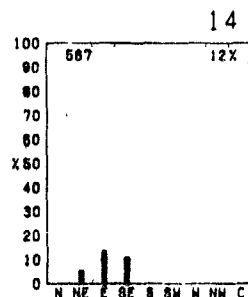
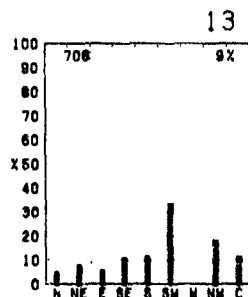
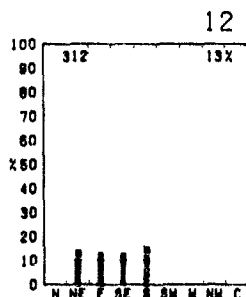
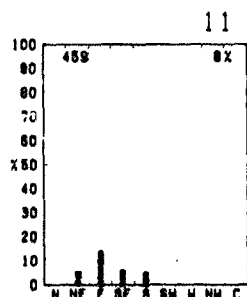
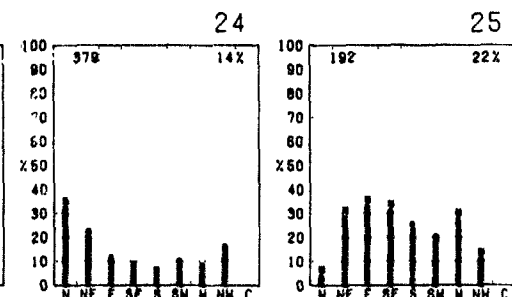
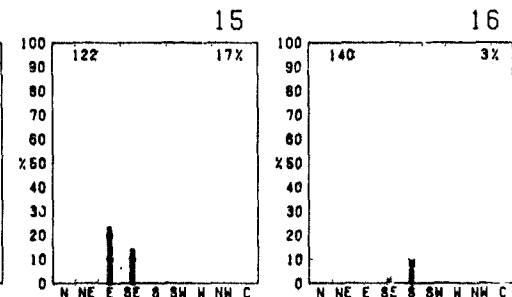
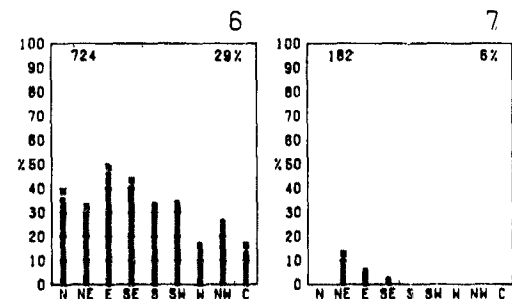
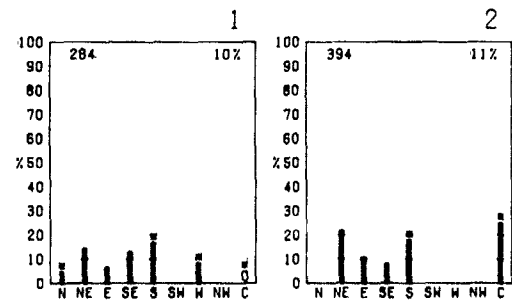
PRECIPITATION

% Pcpn % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow

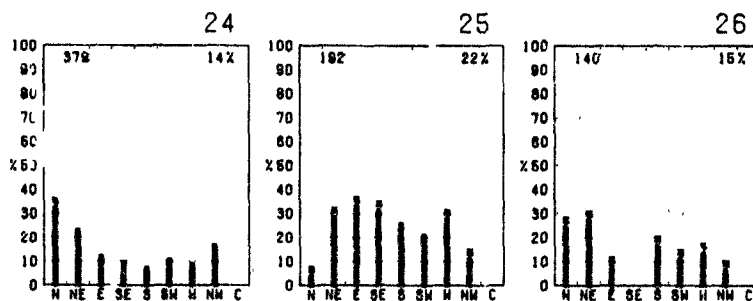
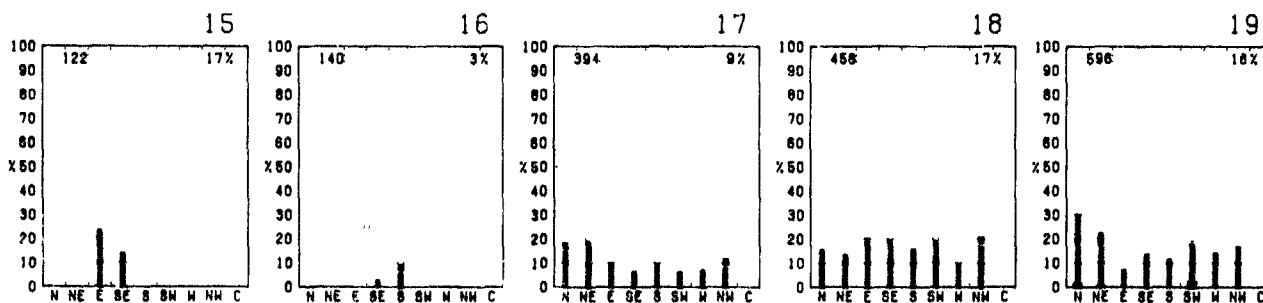
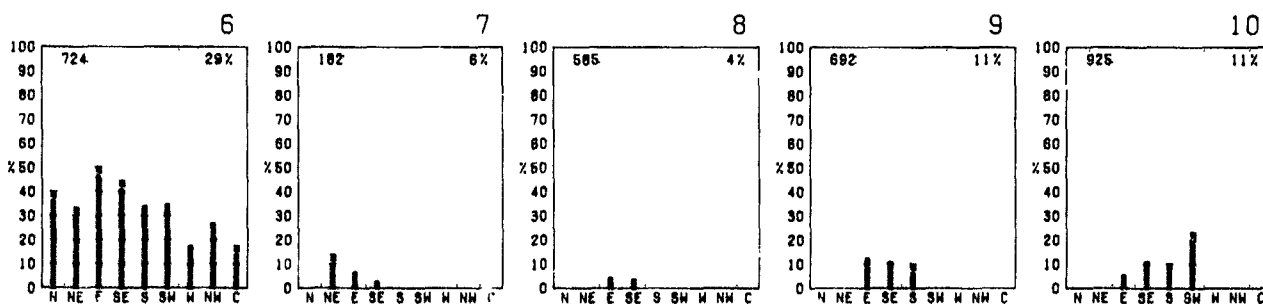
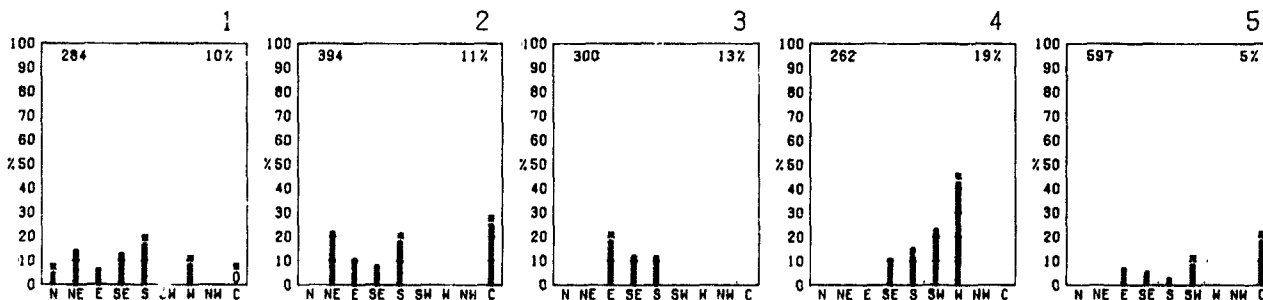


RED LINE - Percent frequency of observations reporting precipitation



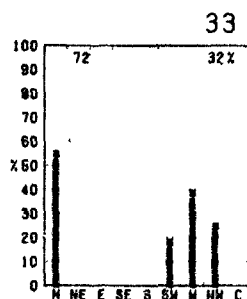
Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**



INSUFFICIENT DATA

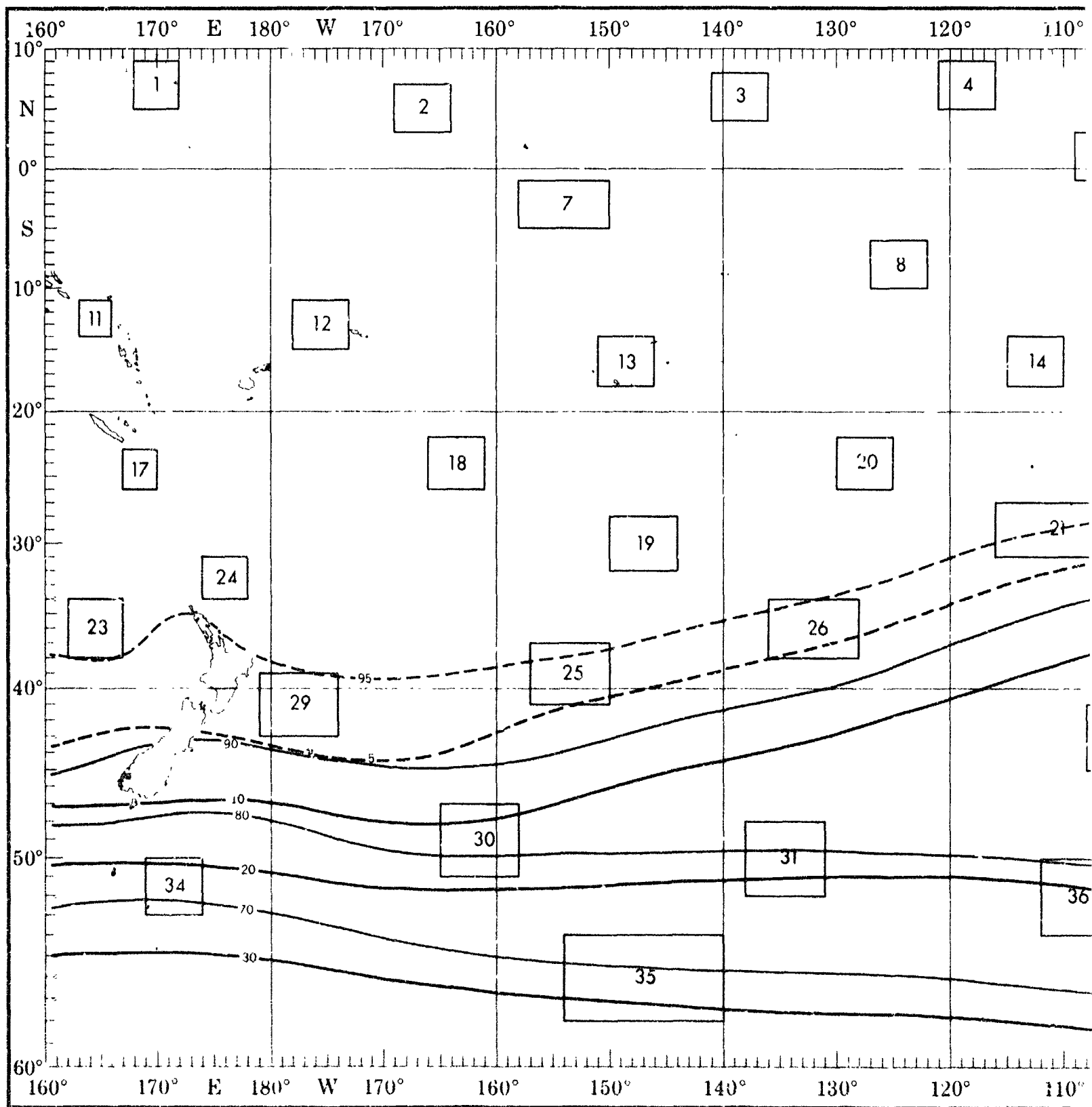
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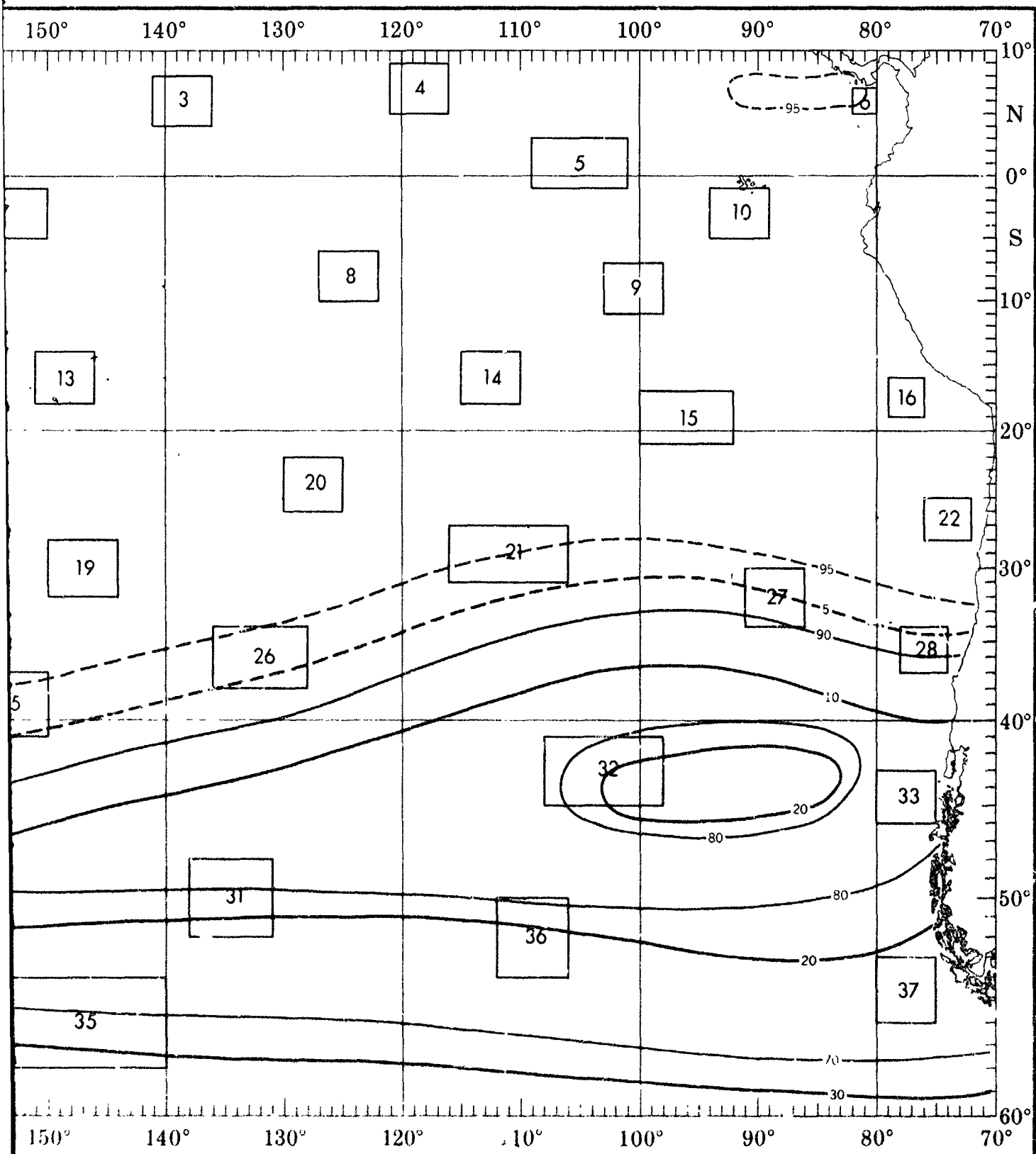
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VISIBILITY

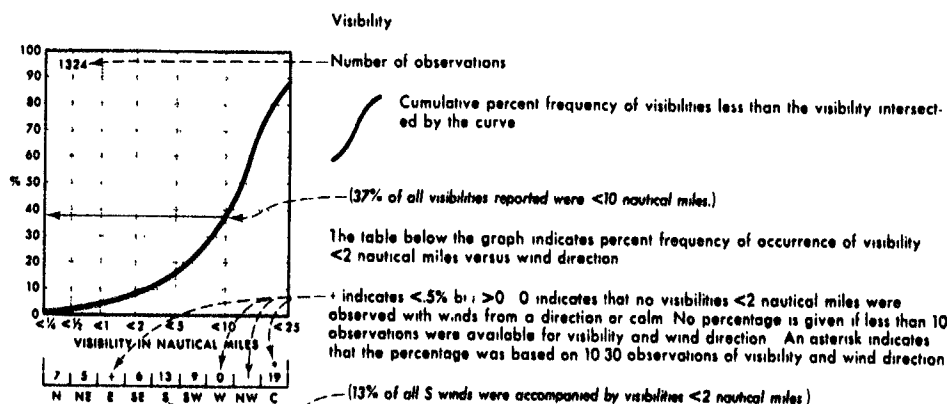


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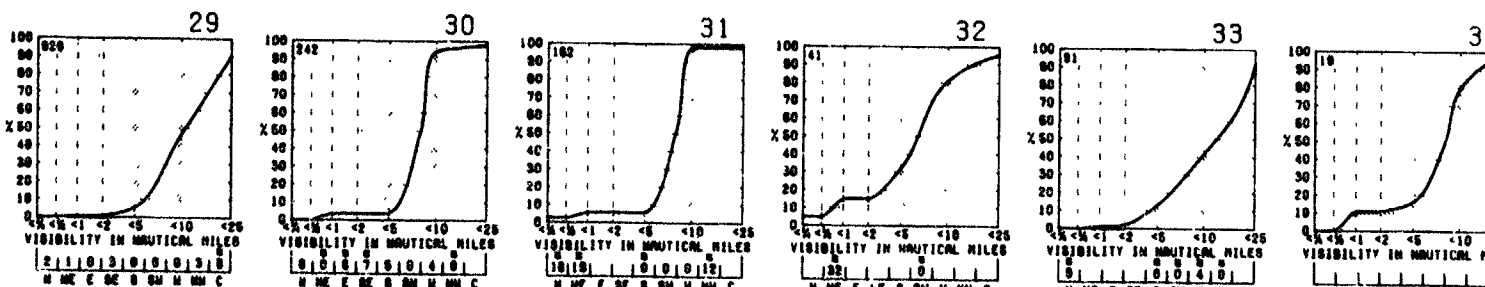
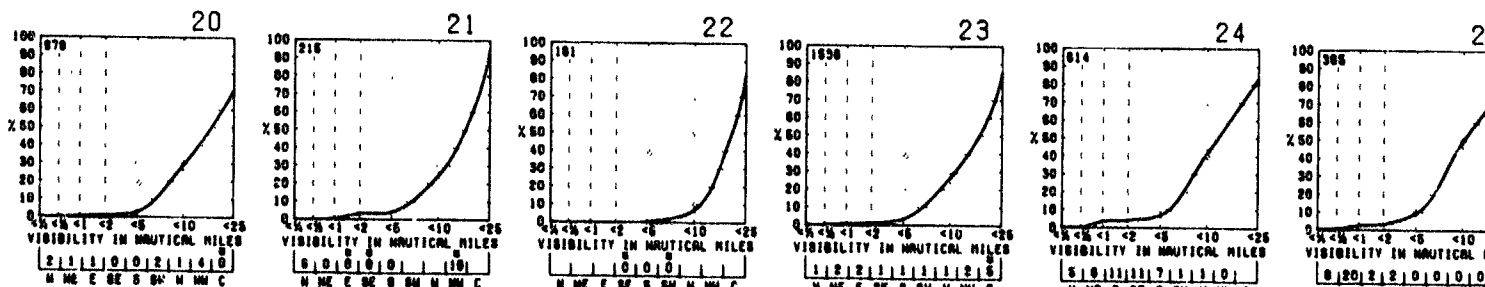
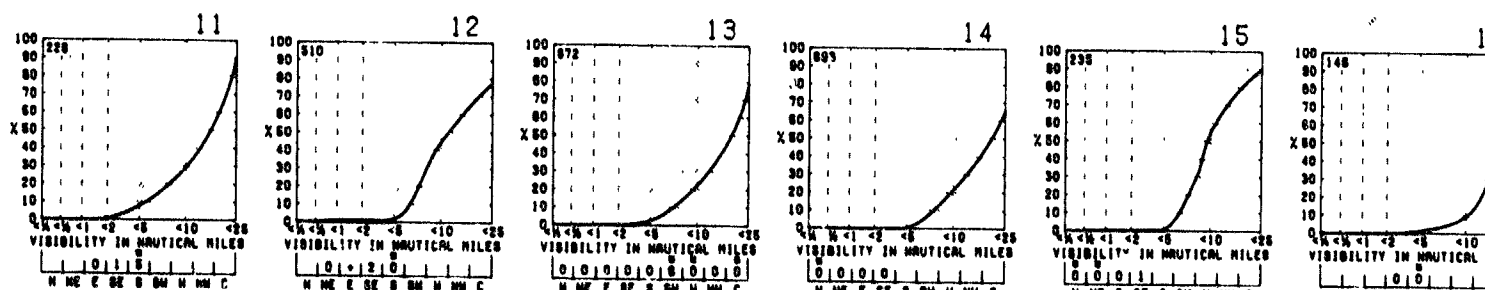
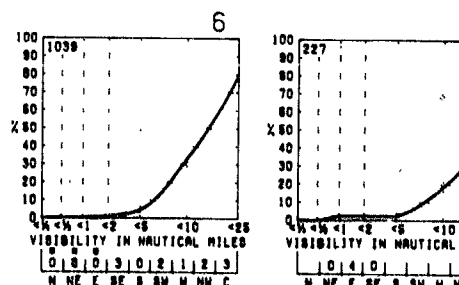
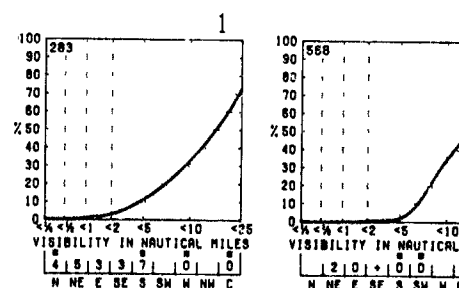
2

VISIBILITY



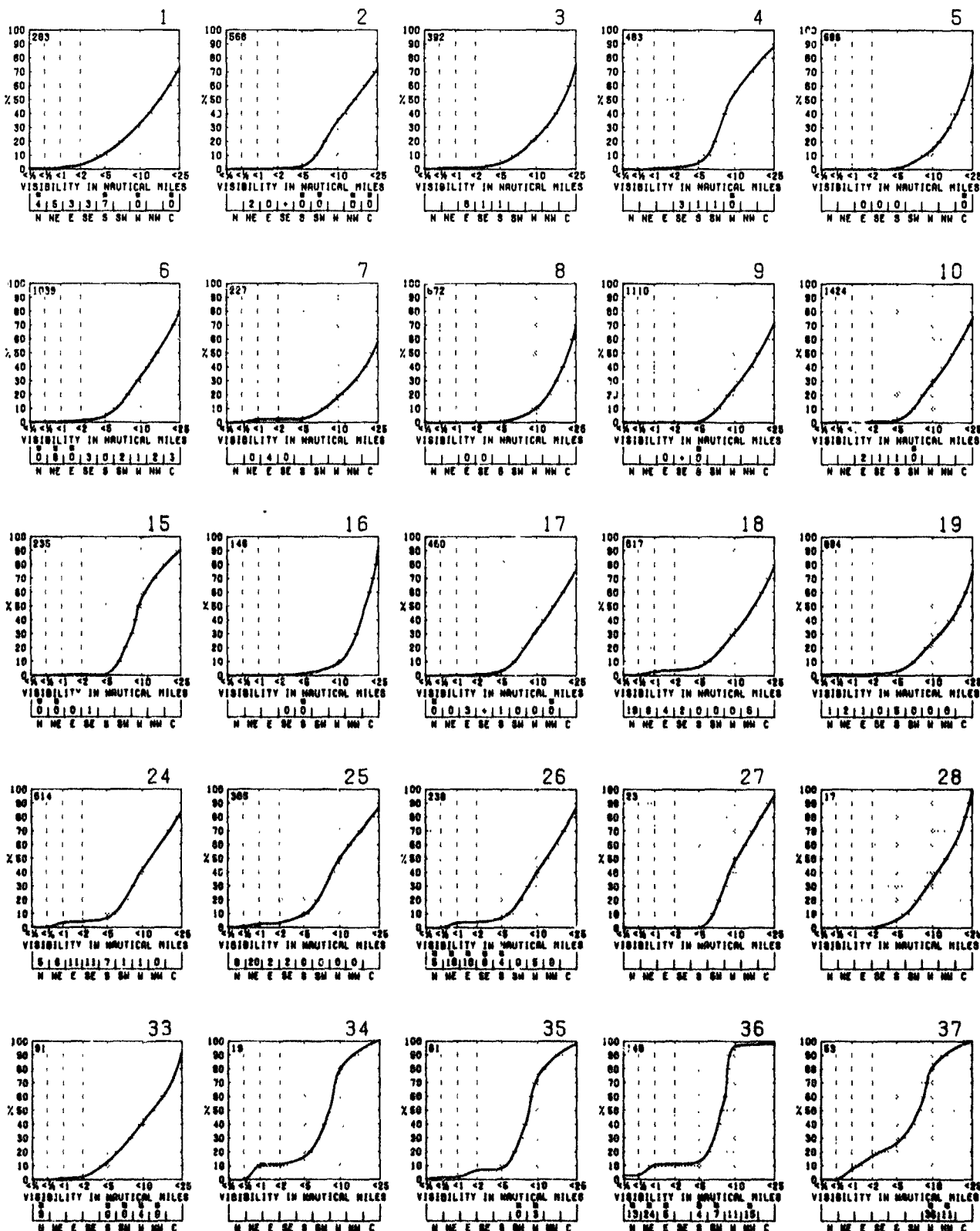
BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles



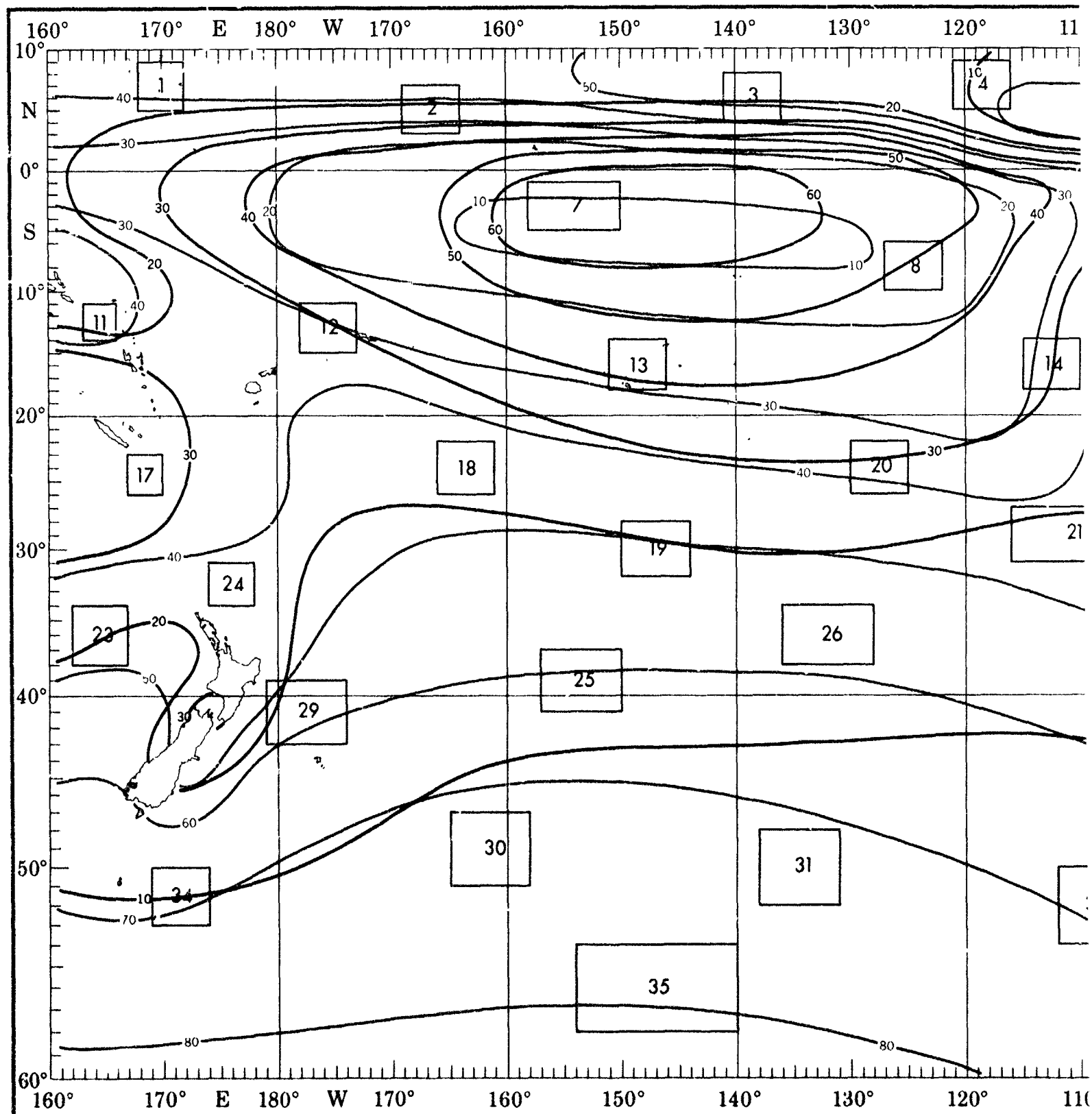
Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

AUGUST

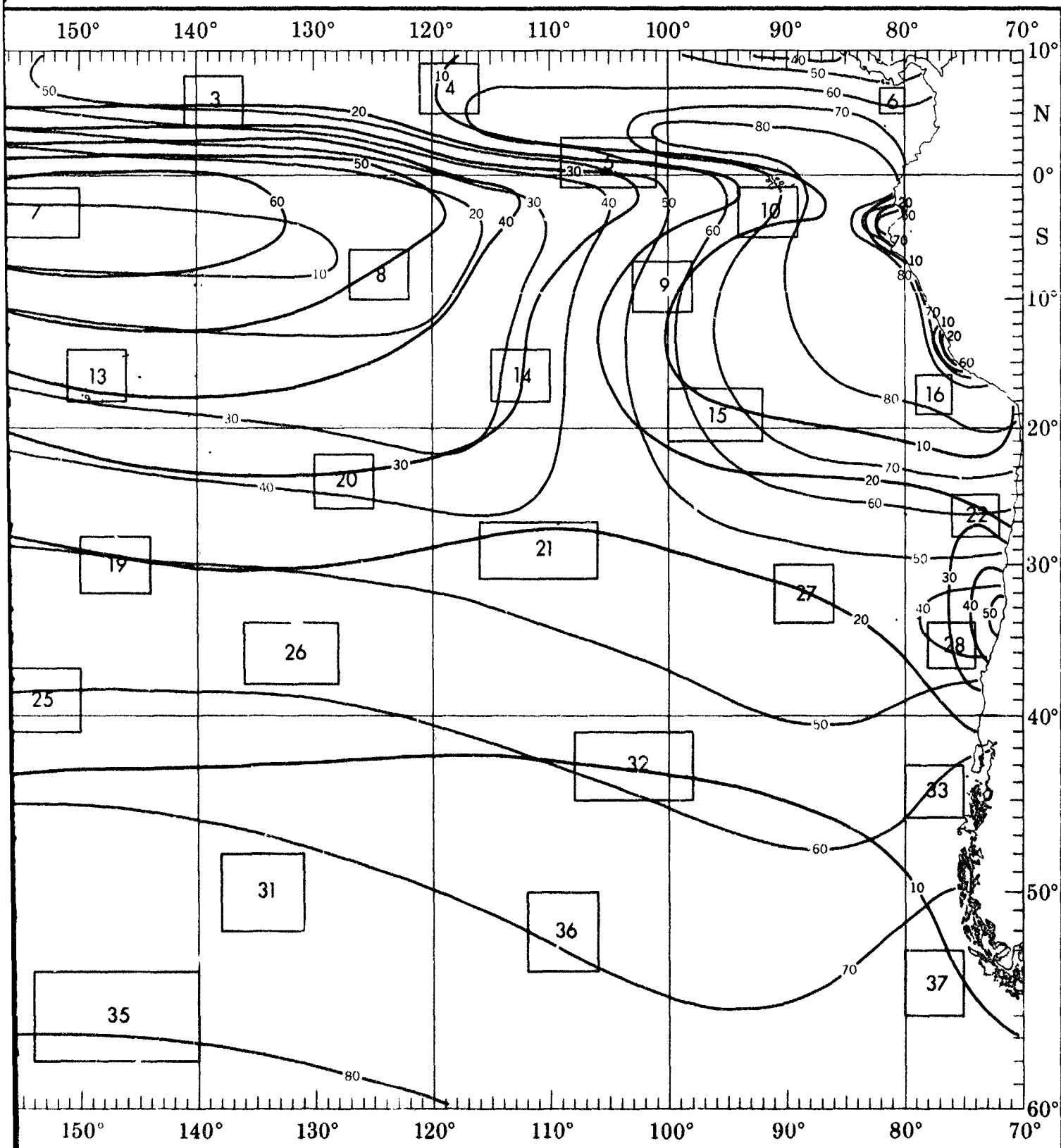


the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

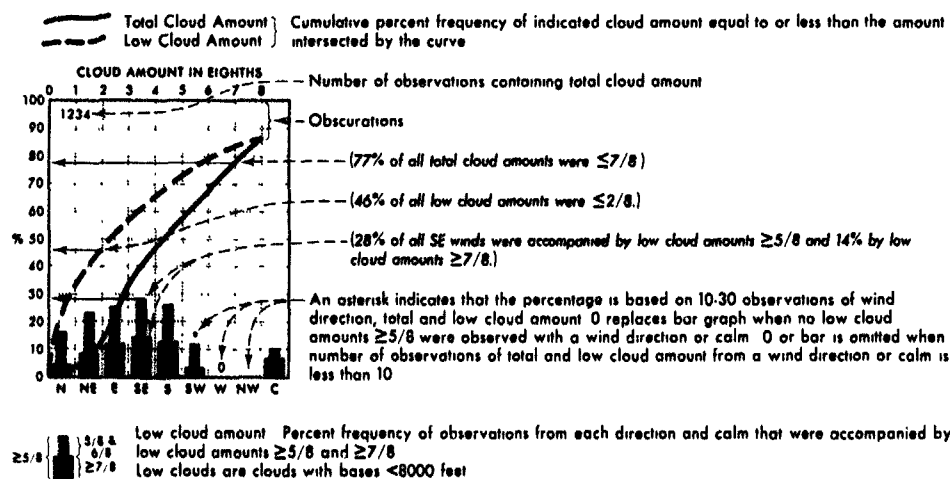
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CLOUD COVER

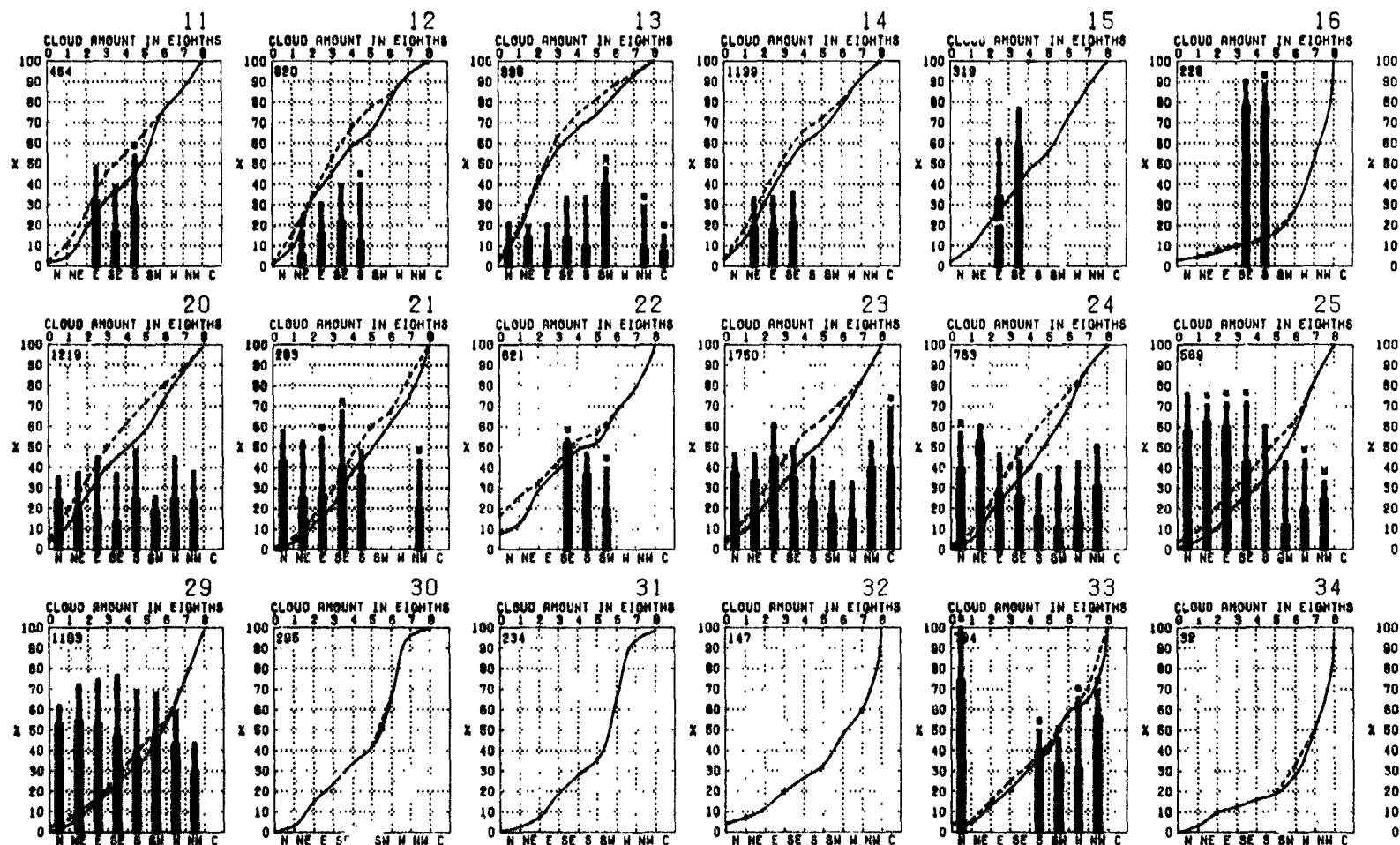
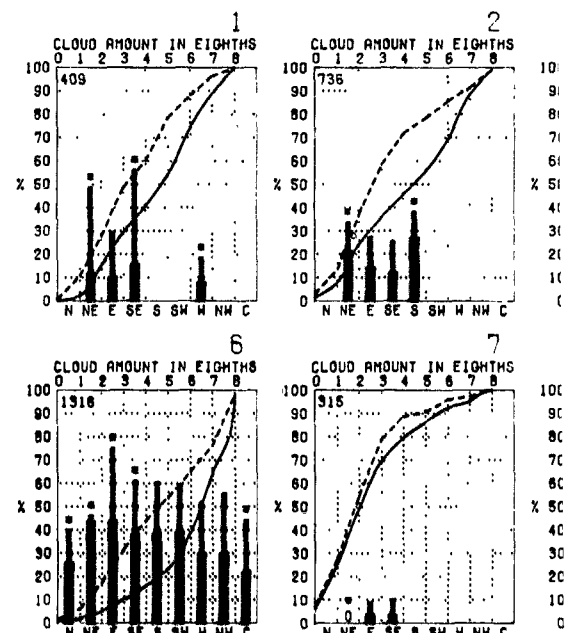


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard to s
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where b

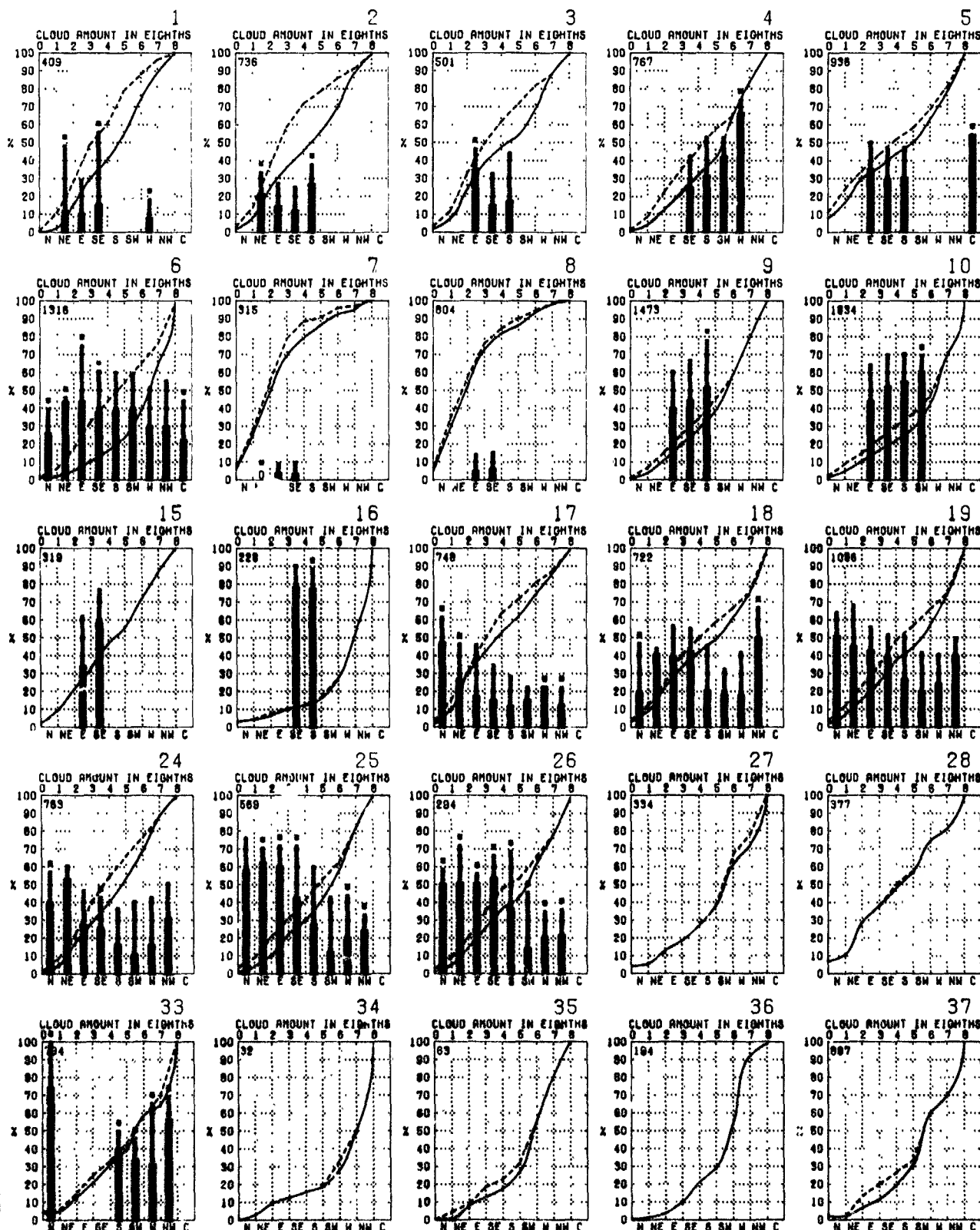
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to or less than the amount

≥5/8 and 14% by low

observations of wind
when no low cloud
0 or bar is omitted when
wind direction or calm is

that were accompanied by



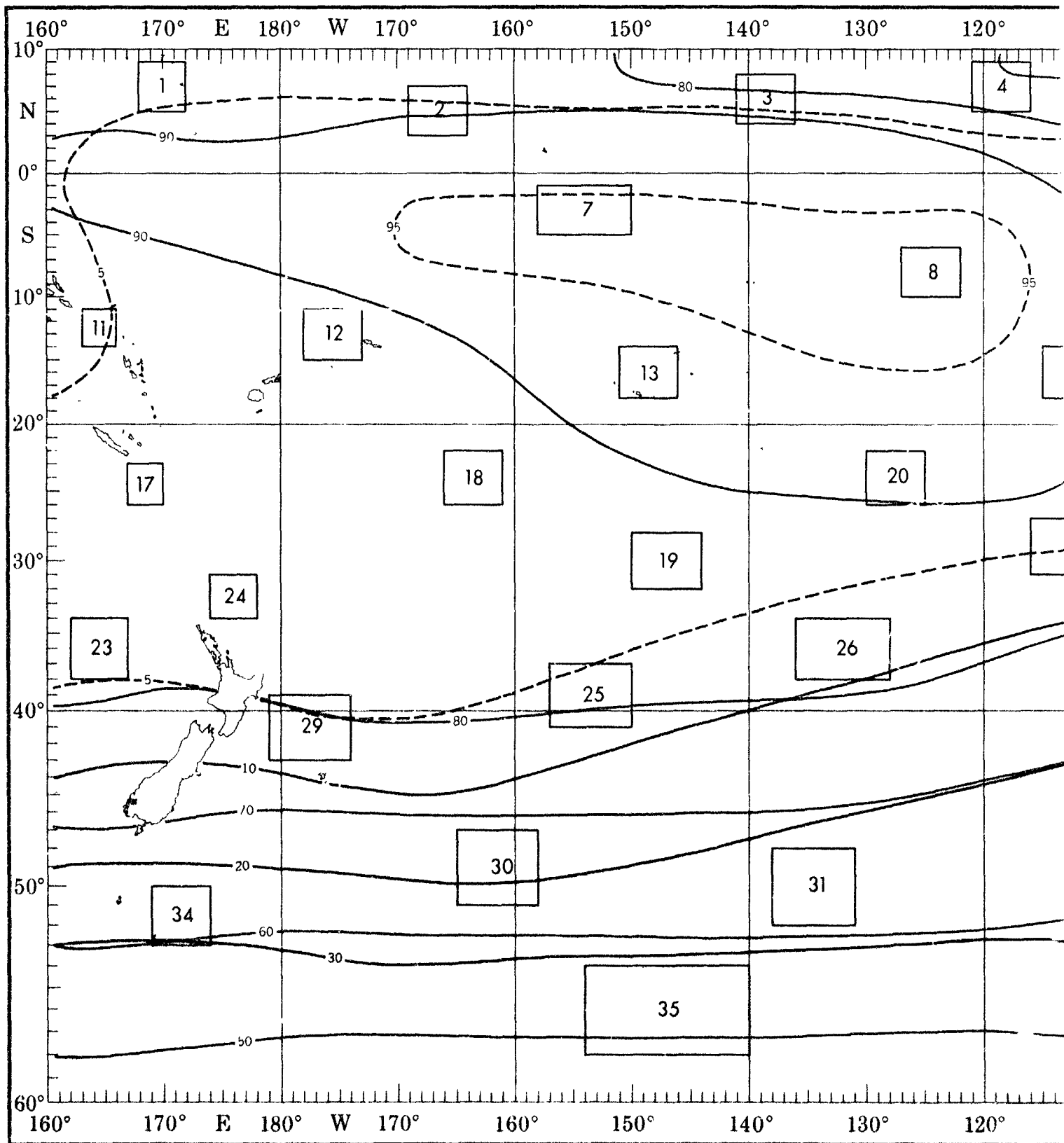
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

1

1

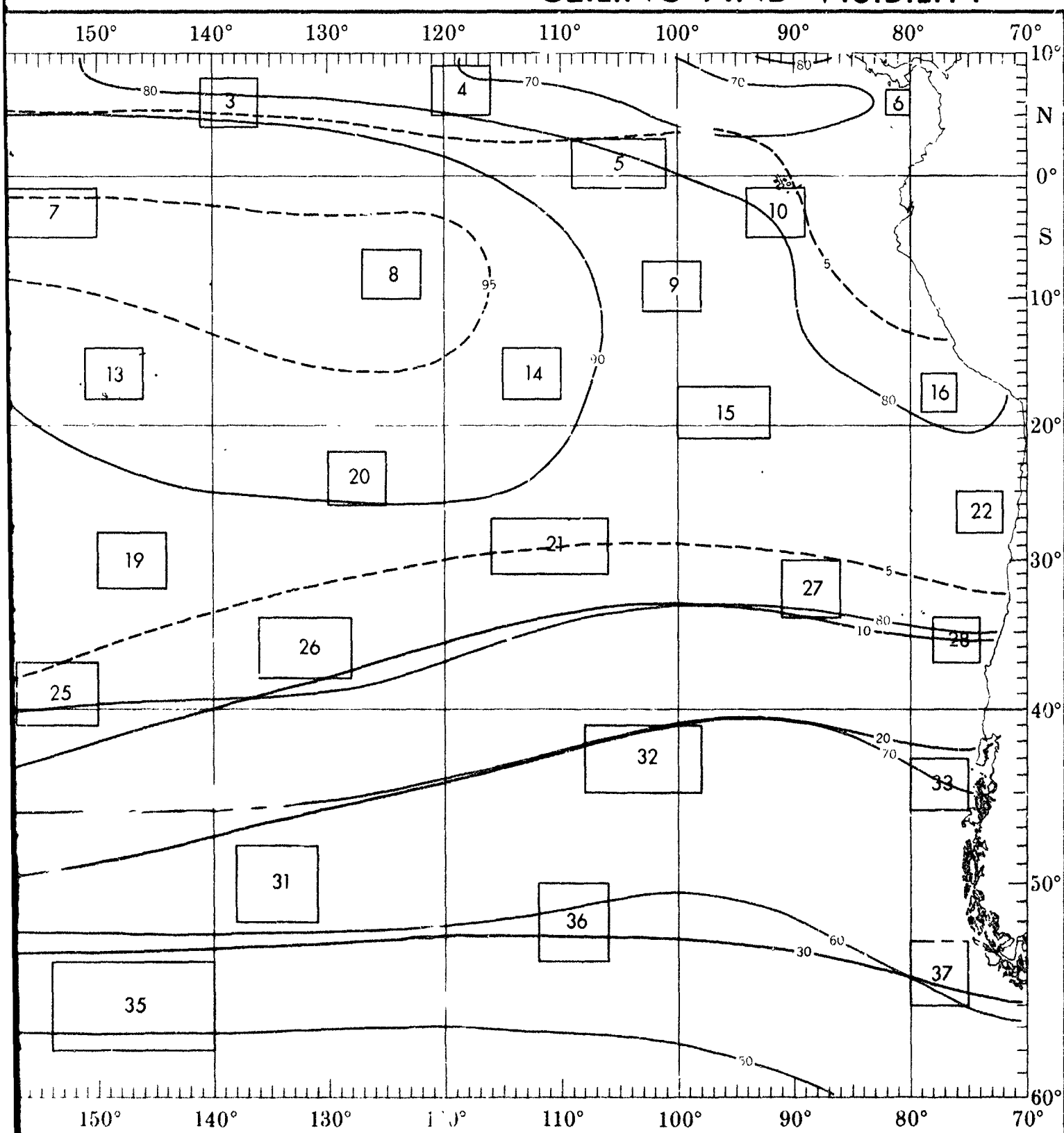
2

AUGUST



1

CEILING AND VISIBILITY



1

1

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Obscurements are included under ceiling "0 < 15"

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

(2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles)

+ indicates $< .5\%$ but > 0

Number of observations

		VISIBILITY					
		<1/2	1/2-1	1-2	2-5	5-10	≥10
LOW CLOUD CEILING	NC	0	0	0	3	13	64
	80-99	0	0	0	0	0	1
	100-199	0	0	0	0	0	4
	200-299	0	0	0	0	0	2
	300-399	0	0	0	0	0	1
	400-499	0	0	0	0	0	1
	500-599	0	0	0	0	0	1
	600-699	0	0	0	0	0	1
	700-799	0	0	0	0	0	1
	800-899	0	0	0	0	0	1
	900-999	0	0	0	0	0	1
	1000-1999	0	0	0	0	0	1
	2000-2999	0	0	0	0	0	1
	3000-3999	0	0	0	0	0	1
	4000-4999	0	0	0	0	0	1
	5000-5999	0	0	0	0	0	1
	6000-6999	0	0	0	0	0	1
	7000-7999	0	0	0	0	0	1
	8000-8999	0	0	0	0	0	1
	9000-9999	0	0	0	0	0	1
	10000-10999	0	0	0	0	0	1
	11000-11999	0	0	0	0	0	1
	12000-12999	0	0	0	0	0	1
	13000-13999	0	0	0	0	0	1
	14000-14999	0	0	0	0	0	1
	15000-15999	0	0	0	0	0	1
	16000-16999	0	0	0	0	0	1
	17000-17999	0	0	0	0	0	1
	18000-18999	0	0	0	0	0	1
	19000-19999	0	0	0	0	0	1
	20000-20999	0	0	0	0	0	1
	21000-21999	0	0	0	0	0	1
	22000-22999	0	0	0	0	0	1
	23000-23999	0	0	0	0	0	1
	24000-24999	0	0	0	0	0	1
	25000-25999	0	0	0	0	0	1
	26000-26999	0	0	0	0	0	1
	27000-27999	0	0	0	0	0	1
	28000-28999	0	0	0	0	0	1
	29000-29999	0	0	0	0	0	1
	30000-30999	0	0	0	0	0	1
	31000-31999	0	0	0	0	0	1
	32000-32999	0	0	0	0	0	1
	33000-33999	0	0	0	0	0	1
	34000-34999	0	0	0	0	0	1
	35000-35999	0	0	0	0	0	1
	36000-36999	0	0	0	0	0	1
	37000-37999	0	0	0	0	0	1
	38000-38999	0	0	0	0	0	1
	39000-39999	0	0	0	0	0	1
	40000-40999	0	0	0	0	0	1
	41000-41999	0	0	0	0	0	1
	42000-42999	0	0	0	0	0	1
	43000-43999	0	0	0	0	0	1
	44000-44999	0	0	0	0	0	1
	45000-45999	0	0	0	0	0	1
	46000-46999	0	0	0	0	0	1
	47000-47999	0	0	0	0	0	1
	48000-48999	0	0	0	0	0	1
	49000-49999	0	0	0	0	0	1
	50000-50999	0	0	0	0	0	1
	51000-51999	0	0	0	0	0	1
	52000-52999	0	0	0	0	0	1
	53000-53999	0	0	0	0	0	1
	54000-54999	0	0	0	0	0	1
	55000-55999	0	0	0	0	0	1
	56000-56999	0	0	0	0	0	1
	57000-57999	0	0	0	0	0	1
	58000-58999	0	0	0	0	0	1
	59000-59999	0	0	0	0	0	1
	60000-60999	0	0	0	0	0	1
	61000-61999	0	0	0	0	0	1
	62000-62999	0	0	0	0	0	1
	63000-63999	0	0	0	0	0	1
	64000-64999	0	0	0	0	0	1
	65000-65999	0	0	0	0	0	1
	66000-66999	0	0	0	0	0	1
	67000-67999	0	0	0	0	0	1
	68000-68999	0	0	0	0	0	1
	69000-69999	0	0	0	0	0	1
	70000-70999	0	0	0	0	0	1
	71000-71999	0	0	0	0	0	1
	72000-72999	0	0	0	0	0	1
	73000-73999	0	0	0	0	0	1
	74000-74999	0	0	0	0	0	1
	75000-75999	0	0	0	0	0	1
	76000-76999	0	0	0	0	0	1
	77000-77999	0	0	0	0	0	1
	78000-78999	0	0	0	0	0	1
	79000-79999	0	0	0	0	0	1
	80000-80999	0	0	0	0	0	1
	81000-81999	0	0	0	0	0	1
	82000-82999	0	0	0	0	0	1
	83000-83999	0	0	0	0	0	1
	84000-84999	0	0	0	0	0	1
	85000-85999	0	0	0	0	0	1
	86000-86999	0	0	0	0	0	1
	87000-87999	0	0	0	0	0	1
	88000-88999	0	0	0	0	0	1
	89000-89999	0	0	0	0	0	1
	90000-90999	0	0	0	0	0	1
	91000-91999	0	0	0	0	0	1
	92000-92999	0	0	0	0	0	1
	93000-93999	0	0	0	0	0	1
	94000-94999	0	0	0	0	0	1
	95000-95999	0	0	0	0	0	1
	96000-96999	0	0	0	0	0	1
	97000-97999	0	0	0	0	0	1
	98000-98999	0	0	0	0	0	1
	99000-99999	0	0	0	0	0	1

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling ≤ 600 feet and/or visibility < 2 nautical miles

		VISIBILITY						
		<1/2	1/2-1	1-2	2-5	5-10	≥10	
LOW CLOUD CEILING	NC	0	0	1	1	5	48	
	80-99	0	0	0	0	0	1	
	100-199	0	0	0	0	0	0	
	200-299	0	0	0	5	2	8	
	300-399	0	0	0	2	3	8	
	400-499	0	0	0	2	3	4	
	500-599	0	0	0	2	1	2	
	600-699	0	0	0	0	0	0	
	700-799	0	0	0	0	0	0	
	800-899	0	0	0	0	0	0	

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b ceilings (hundreds of feet)

ds (h) when low cloud amount

Occurrences of $N_h < 5/8$

ously with visibility ≥ 5 but < 10

visibility ≥ 5 nautical miles

files

		VISIBILITY							1
		<1/4	1/4-1/2	1/2-1	1-2	2-5	>5	0	10
LOW CLOUD CEILING	MC	0	0	0	4	7	49		
	50-99	0	0	0	0	0	1		
	35-49	0	0	0	0	0	0		
	20-34	0	0	0	1	0	6		
	10-19	0	0	0	2	2	13		
	5-9	0	0	0	2	0	11		
	3-4	0	0	0	0	1	0		
	1-2	0	0	0	0	0	0		
	0-1.6	0	0	0	1	0	1		

		VISIBILITY							2
		<1/4	1/4-1/2	1/2-1	1-4	4-10	>10		
LOW CLOUD CEILING	NC	0	0	0	+	9	70		
	99-99	0	0	0	+	0	+		
	95-99	0	0	0	0	0	+		
	90-95	0	0	0	0	1	9		
	10-20	0	0	0	0	9	10		
	5-10	0	0	+	+	2	8		
	3-5	0	0	0	0	0	0		
	1.5-3	0	0	0	0	0	0		
0-1.5	0	0	0	0	0	0			

		VISIBILITY						
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5-10	>10
LOW CLOUD CEILING	MC	0	0	+	1	2	60	
	99-99	0	0	0	0	0	1	
	95-99	0	0	0	0	0	1	
	90-95	0	0	0	0	2	3	
	10-20	0	0	0	3	2	19	
	0-10	0	0	0	1	1	6	
	3-6	0	+	0	0	1	1	
	1-3	0	0	0	0	+	0	
		1	0	+	0	0	0	

		VISIBILITY							4
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10	
LOW CLOUD CEILING	NC	0	0	0	2	2	43		
	00-30	0	0	0	0	0	+		
	30-50	0	0	0	0	0	+		
	50-70	0	0	+	0	2	5		
	70-90	0	1	+	1	3	17		
	90-100	0	0	0	3	4	8		
	3-8	0	0	0	1	+	3		
	1-3	0	0	0	0	+			
0-1	0	0	0	0	+	0			

		VISIBILITY							5
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	≥10	
LOW CLOUD CEILING	MC	0	0	0	+	3	51		
	50-90	0	0	0	0	0	+		
	35-50	0	0	0	0	0	2		
	20-35	0	0	0	0	1	9		
	10-20	0	0	0	+	2	19		
	5-10	0	0	0	0	2	10		
	3-5	0	0	0	+	1	1		
	.5-3	0	0	0	0	0	0		
	0<.5	0	0	0	0	0	+		

		VISIBILITY						
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10
LOW CLOUD CEILING	MC	0	0	0	+	4	40	
	50-99	0	0	0	+	+	1	
	35-50	C	0	+	+	+	2	
	20-35	0	0	+	0	2	6	
	10-20	0	0	0	1	4	16	
	0-10	+	0	+	1	5	10	
	3-6	+	0	0	+	2	1	
	1-3	0	0	0	+	+	0	

		VISIBILITY							7
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	MI	
LOW CLOUD CEILING	NC	0	0	0	0	0	2	87	
	80<89	0	0	0	0	0	0	0	
	35<50	0	0	0	0	0	0	0	
	20<35	0	0	0	0	0	1	2	
	10<20	0	0	0	0	0	2	2	
	5<10	0	0	0	0	0	0	2	
	3<5	0	0	0	0	1	0	0	
	1<3	0	0	0	0	0	0	0	
	0<1	0	0	0	0	0	0	0	

		VISIBILITY							8
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10	
LOW CLOUD CEILING	NC	0	0	0	0	2	64		
	30<00	0	0	0	0	0	+		
	35<50	0	0	0	0	0	1		
	20<35	0	0	0	+	1	3		
	10<20	0	0	0	+	+	5		
	0<10	0	3	0	+	+	3		
	3<0	0	0	0	0	+	+		
	1<0<3	0	0	0	0	0	0		
0<1<8	0	0	0	0	0	0			

		VISIBILITY							9
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5-10	>10	
LOW CLOUD CEILING	NC	0	0	0	0	0	1	34	
	80-90	0	0	0	0	0	0	1	
	35-80	0	0	0	0	0	+	5	
	20-35	0	0	0	+	1	11		
	10-20	0	0	+	+	2	30		
	0-10	0	0	0	+	2	11		
	3-5	0	0	0	0	+	+		
	1.5-3	0	0	0	0	0	+		
0-1.5	0	0	0	0	0	0	+		

		VISIBILITY								10
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5-10	10-16		
LOW CLOUD CEILING	MC	0	+	+	+	1	29			
	50+50	0	0	0	0	1	2			
	55+55	0	0	0	+	1	4			
	70+30	0	0	0	+	1	13			
	10+20	+	0	0	+	3	25			
	8+10	0	0	0	+	4	12			
	3+6	0	0	0	+	1	1			
	1.5+3	0	0	0	+	+	+			
	0+1.5	0	0	0	0	0	0			

		VISIBILITY							15
		<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	10	10	
LOW CLOUD CEILING	MC	0	0	0	0	3	35		
	50-80	0	0	0	0	0	0		
	80-80	0	0	0	0	1	3		
	80-80	0	0	0	0	2	8		
	10-80	0	0	0	0	6	15		
	8-10	0	0	0	0	3	24		
	3-8	0	0	0	1	2	0		
	1.5-3	0	0	0	0	0	0		
0-1.5	0	0	0	0	0	0			

		VISIBILITY						16
		<1/4	1/4	1/2	3/4	1	>1	
LOW CLOUD CEILING	NC	0	0	0	0	0	12	
	00-00	0	0	0	0	0	0	
	00-00	0	0	0	0	0	4	
	20-00	0	0	0	0	0	10	
	10-00	0	0	0	0	0	39	
	0-10	0	0	0	0	1	24	
	0-0	0	0	0	0	1	1	
	1-00	0	0	0	0	0	0	
0-1.0	0	0	0	0	1	0		

17

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10
LOW CLOUD CEILING	MC	0	+	+	0	1	62
	50-99	0	0	0	0	0	1
	55-99	0	0	0	0	1	2
	70-99	0	0	0	1	0	4
	10-50	0	0	0	1	1	15
	6-10	0	0	+	0	2	8
	3-6	0	0	0	0	1	0
	1-3	0	0	0	+	0	0
0-1	0	0	0	+	0	0	

		VISIBILITY								18
		<1/8	1/8	1/4	3/8	1/2	3/4	1	010	
LOW CLOUD CEILING	MC	0	0	0	0	0	0	0	48	
	00-00	0	0	0	0	0	0	0	1	
	05-00	0	0	0	0	0	0	0	1	
	00-05	0	0	0	0	0	0	2	8	
	10-00	0	+	+	+	+	5	17		
	0-10	0	+	+	+	1	8	8		
	0-5	+	0	0	0	1	1	1		
	10-05	0	0	0	+	0	+			
0-10	0	0	0	+	0	0	3			

19

		VISIBILITY							
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-2	2-4	4-10
LOW CLOUD CEILING	NC	0	0	+	+	2	48		
	50-99	0	0	0	0	+	1		
	99-999	0	0	0	+	+	4		
	999-9999	0	0	0	0	1	8		
	10-999	0	0	0	1	2	18		
	9-10	0	0	+	+	3	8		
	3-9	0	0	0	1	+	1		
	1-3	0	0	0	0	+	+		
0-1	0	0	0	0	0	+			

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	10
MC		0	0	0	+	2	63
60-69		0	0	0	0	0	1
50-59		0	0	0	0	0	1
30-39		0	0	0	0	0	1
10-29		+	0	+	1	2	17
0-9		0	0	+	2	3	8
3-9		0	0	+	1	0	+
1-9-9		0	0	+	1	0	0
0-1-9		0	0	0	0	0	0

25

		VISIBILITY						
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10	
LOW CLOUD CEILING	MC	0	0	0	+	6	38	
	60-80	0	0	0	+	0	+	
	80-90	0	0	0	+	1	8	
	90-95	0	0	0	1	1	0	
	10-20	0	0	+	4	7	17	
	0-10	0	0	+	2	+	8	
	3-6	+	0	+	1	0	2	
	1-5-3	0	0	0	0	0	0	
0-1, 5	0	0	0	0	0	0		

		VISIBILITY					
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	>3/4	>10
MC	0	1	0	0	3	45	
PO-SS	0	0	0	0	0	1	
SS-SS	0	0	0	0	0		
PO-SC	0	0	0	0	0	1	10
SC-SS	0	0	0	0	4	17	
SC-SS	0	0	0	1	1	13	
SC-SS	0	0	1	1	1	1	
1-5-3	0	0	0	0	0	0	
0-1-5	0	0	0	0	0	0	

27

**INSUFFICIENT
DATA**

		VISIBILITY							28
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	MC	0	0	0	7	0	40		
	60-80	0	0	0	0	0	0		
	35-50	0	0	0	0	0	0		
	20-30	0	0	0	0	0	7		
	10-20	0	0	0	0	27	20		
	0-10	0	0	0	0	0	0		
	0-0	0	0	0	0	0	0		
	1-5	0	0	0	0	0	0		
0-1.5	0	0	0	0	0	0			

		VISIBILITY					
		<1/4	1/4-1/2	1/2-1	1-2	>2	MISSING
LOW CLOUD CEILING	MC	0	0	0	0	0	20
	00-00	0	0	0	0	0	0
	00-00	0	0	0	0	0	0
	00-00	0	0	0	2	3	0
	10-00	0	0	0	2	0	11
	0-10	0	2	0	6	6	0
	0-0	0	0	0	2	0	2
	1-00	0	0	0	2	0	0
	0-10	0	0	2	0	2	0

34

**INSUFFICIENT
DATA**

		VISIBILITY					35
		<1/4	1/4-1/2	1/2-1	1-3	>3	
LOW CLOUD CEILING	NC	0	0	0	0	23	
	99-99	0	0	0	0	0	
	95-99	0	0	0	0	0	
	90-99	0	0	0	0	0	
	80-99	0	0	0	0	5	10
	70-99	0	0	0	0	5	10
	6-10	5	0	5	5	0	0
	3-6	0	0	0	0	0	0
	1-5	0	0	0	0	0	0
	0-1	0	0	0	0	0	0
						99	

36

**INSUFFICIENT
DATA**

37

		VISIBILITY							
		<1/4	1/4-1/2	1/2-1	1-4	4-10	10-15	15-30	
LOW CLOUD CEILING	MC	0	0	0	0	14	14		
	0-99	0	0	0	0	0	0		
	99-999	0	0	0	0	0	0		
	999-9999	0	0	0	0	7	0		
	10-9999	0	0	0	14	14	14		
	0-10	0	0	7	7	7	0		
	0-0	0	0	0	0	0	0		
	1-0-0	0	0	0	0	0	0		
0-1-0	0	0	0	0	0	0			

14

INSUFFICIENT DATA

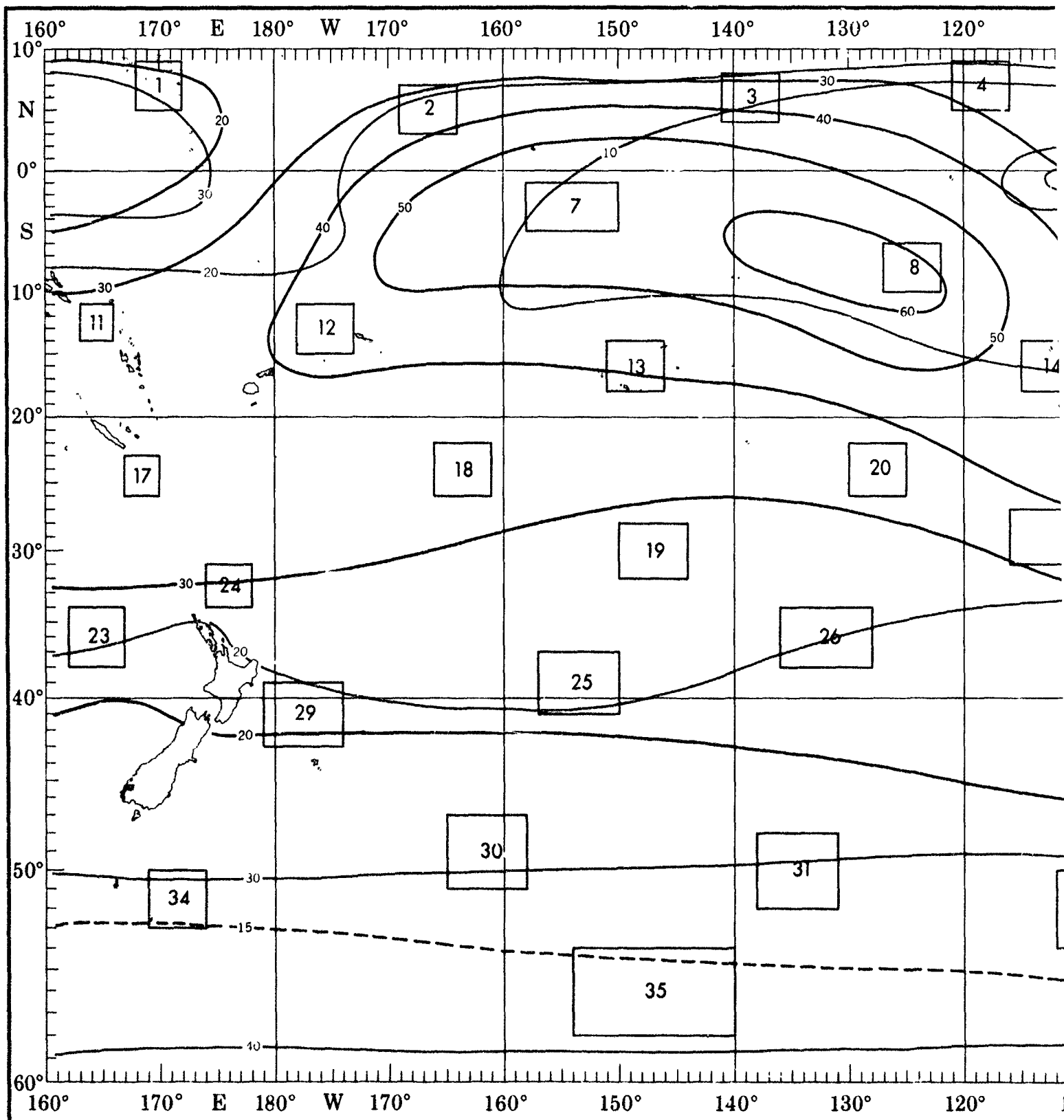
INSUFFICIENT DATA

**INSUFFICIENT
DATA**

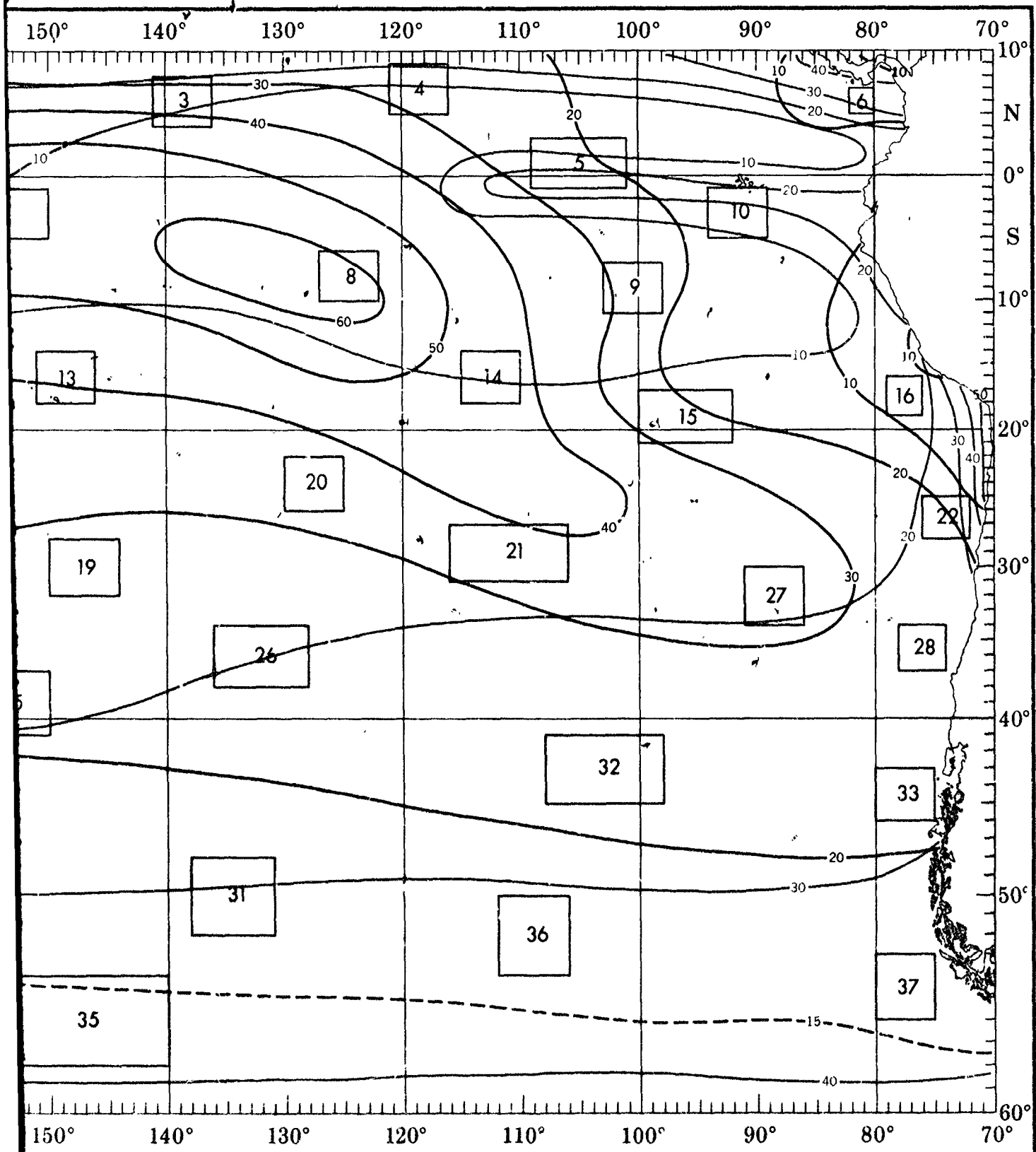
the objective compilation of available data for specified areas without regard to suspected biases. Tables (opposite page) are based on all available data subjectively adjusted where bias was evident.

AUGUST

WIND



WIND-VISIBILITY-CLOUDINESS



1

1

2

LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsby) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (knots)

ICC - Value	0-3	4-10	11-21	22-33	34-40
<13500000	4	1	1	4	0
<6000000	2	2	1	2	4
Value <17	1	2	1	1	+
<10000000	3	4	2	1	1
<4000000	6	9	6	5	2
Value <25	9	11	12	3	1
<2000000	12	13	13	7	3
ICC <200	4	2	1	4	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

— (2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

~+ indicates < 5% but > 0

-Number of observations

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions LCC ≥ 5000 ft, (or no LCC), V_{is} ≥ 5 nm and Wind 11-21 kts

RED LINE Percent frequency of poor conditions Any one of the following constitutes poor conditions LCC <300 ft.,
Vgby <1 nm, Wind <6 or ≥34 kts

Satisfactory conditions-between poor and optimum

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10-19	20-29	30-39	40+
<1.5 & ON +0	0	0	0	0	0
<5 & ON +3	0	2	3	7	0
VSBY +2	0	0	1	0	0
<10 & ON +5	0	3	0	4	0
<50 & ON +8	0	8	21	7	0
VSBY +5	2	22	56	8	0
<55 & +6	2	13	39	2	0
UC 4 h 10	2	11	33	2	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-20	21-30	31-40
<1.5 OR <.5	0	0	1	0	0
<6 OR <2	0	1	4	1	0
VSBY <2	0	0	1	0	0
<10 OR <2	0	1	8	2	0
<20 OR <6	1	8	18	4	0
VSBY >6	5	37	46	7	2
>20 & >6	4	28	29	3	2
MC > 10	3	27	27	2	2

13

WIND SPEED (KNOTS)

LCC - V00Y	0-9	10	11-21	22-33	34+
<1.5 & OR <1.5	0	0	+	0	0
<6 & OR <2	+	+	1	1	0
V00Y <2	0	0	+	0	0
<10 & OR <2			2	4	1
<20 & OR <5	1	5	12	3	+
V00Y >5	4	32	51	10	0
>50 & >5	4	26	37	6	0
HC > 10	3	25	33	6	0

855

14

WIND SPEED (KNOTS)

LCC - VBBY	0-9	10	11-22	23-30
<1.0 & DR < 0.5	0	0	0	0
<0.5 & DR < 0.2	0	0	0	0
VBBY < 0	0	0	0	0
<10 & DR < 2	0	2	4	1
<20 & DR < 0.5	0	5	13	2
VBBY > 0.5	2	31	55	11
>20 & > 0.5	1	23	35	0
NC > 10	1	22	35	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-20	21-30	31-40
<1.0 & DR < 0.5	0	0	0	0	0
<0.8 & DR < 0.2	0	0	2	1	0
VSBY < 0	0	0	0	0	0
<1.0 & DR < 0.2	0	0	18	3	0
<2.0 & DR < 0.5	1	12	23	8	0
VSBY > 0	3	27	52	17	0
> 0.5 & > 0.5	1	8	21	8	0
HC > 10	1	8	21	6	0

16

WIND SPEED (KNOTS)

LOC - VSBY	0-3	4-10	11-20	21-30	31-40
<1.6 & OR <6	0	1	0	0	0
<6 & OR <2	1	1	1	0	0
VSBY <2	0	0	0	0	0
<10 & OR <2	2	8	18	0	0
<10 & OR <5	3	15	42	6	0
VSBY >5	3	26	61	9	0
>50 & >5	0	6	8	0	0
MC > 10	0	6	8	0	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10-19	20-29	30-39	40+
<1.5 km + 0	0	0	0	0	0
<6 km + 0	0	+	1	+	0
VSBY < 2	0	+	+	+	0
<10 km + 0	+	2	4	1	0
<20 km + 0	1	9	16	3	+
VSBY > 6	5	29	45	8	+
> 60 + 30	4	27	27	5	+
M. > 10	4	26	25	5	+

21

WIND SPEED (KNOTS)

LCF - VSBY	0-9	10-19	20-29	30-39	40-49
<1.5 & OR <1.5	0	1	0	0	0
<6 & OR <2	0	1	0	0	0
VSBY <2	0	0	0	0	0
<10 & OR <2	0	1	1	1	0
<20 & OR <5	1	12	10	3	0
VSBY <5	2	33	56	8	0
>50 & >5	2	16	20	3	0
HC > 10	2	14	27	3	0

177

WIND SPEED (KNOTS)					
LCC - VBBY	0-9	10-19	20-29	30-39	40-49
<1.5 & OR <1.5	1	0	0	0	0
<6 & OR <2	1	0	0	0	0
VBBY <2	0	0	0	0	0
<10 & OR <3	1	4	5	2	0
<20 & OR <6	2	9	10	6	0
VBBY >6	11	27	42	18	2
>60 & >6	9	16	19	12	2
NC > 10	9	13	19	12	2

WIND SPEED (KNOTS)					
100 - 1400	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49
<1.5 & 00 - 0.5	0	0	0	0	0
<0.5 & 00 - 0.5	0	1	1	1	1
YESY <0.5	0	0	0	0	1
<10 & 00 - 0.5	0	3	3	3	3
<20 & 00 - 0.5	1	9	14	7	8
YESY >0.5	4	20	43	16	5
>50 & 00 - 0.5	3	17	26	10	1
NC > 10	3	16	25	9	1

24

WIND SPEED (KNOTS)

U - 1011	0 - 10	11 - 20	21 - 30	31 - 40
0 - 5 000 4 00	0 0	0 0	0 0	0 0
06 000 4 2	0 1	2 1	1 0	0 0
VS07 4 2	0 1	1 0	0 0	0 0
10 0 000 4 0	0 5	9 2	0 0	0 0
020 0 000 4 0	1 11	19 7	0 0	0 0
VS07 4 5	4 32	48 10	4 1	0 0
4 50 4 2 5	2 19	28 5	1 0	0 0
MC 4 10	2 10	27 4	0 0	0 0

	25
WIND SPEED (KNOTS)	
LCC - VSBY	A- 3 10 21 33 44 B- C- D- E- F-
<1.5 & OR <.5	0 0 0 + 0
<.5 & OR <.2	0 + 2 3 0
VSBY <.2	0 0 1 1 0
<10 & OR <.2	0 2 6 4 +
<20 & OR <.5	+ 6 10 15 4
VSBY >.5	1 23 37 24 3
>20 & >.5	1 12 18 11 +
MC <= 10	1 11 16 7 +

231

29
MIMO SPEED (KNOTS)

LCC - Y007	0-3	4-10	11-21	22-30	304
<1.0 & 00 - 0	*	1	*	0	0
<0.6 00 - 0	*	1	1	1	1
Y007 <2	*	*	*	0	*
<1.0 & 00 - 2	1	3	4	6	9
<0.6 & 00 - 0	1	8	12	9	6
Y007 06	3	24	44	3	5
000 & 00	1	11	17	5	0
MC 4 x 10	1	10	15	5	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-20	21-30	30+
<1.5 & BR <0	0	0	0	0	0
<0 & BR <2	0	0	0	0	0
VSBY <2	0	0	0	0	0
<10 & BR <2	0	0	13	7	0
<20 & BR <5	0	7	27	7	0
VSBY >6	0	27	53	13	0
>50 & >0	0	0	33	7	0
HC > 10	0	0	20	0	0

31

**INSUFFICIENT
DATA**

32

**INSUFFICIENT
DATA**

33					
WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-23	24-33	34-50
<1.5 & OR <5	0	0	2	0	2
<4 & OR <2	0	0	2	5	3
VSBY <2	0	0	0	0	3
<10 & OR <2	3	3	10	10	6
<20 & OR <5	2	6	23	15	6
VSBY >5	3	16	63	10	3
>50 & >5	2	9	23	3	0
MC > 10	2	9	18	2	0

34

**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where necessary.

ISIBILITY-WIND

AUGUST

(Visby) in nautical

then low cloud amount

<1000 feet and/or

ces of $N_h < 5/8$

Wind 11-21 kts

ins LCC <300 ft,

1

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	1	1	0
<.5 & OR <.2	0	1	1	0
VSBY <.2	0	0	0	0
<10 & OR <.2	1	6	9	0
<20 & OR <.5	3	17	17	1
VSBY >.5	13	53	24	1
>50 & >.5	10	39	8	0
NC & >10	9	32	9	0

138

2

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	+	+	0	0
VSBY <.2	+	0	0	0
<10 & OR <.2	1	3	4	0
<20 & OR <.5	2	9	11	0
VSBY >.5	7	48	43	1
>50 & >.5	4	38	32	1
NC & >10	3	34	31	1

290

3

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	+	1	0	0
<.5 & OR <.2	1	1	2	0
VSBY <.2	1	1	+	0
<10 & OR <.2	1	3	8	+
<20 & OR <.5	2	8	19	2
VSBY >.5	3	33	53	5
>50 & >.5	3	24	35	3
NC & >10	3	22	33	2

289

4

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<.5 & OR <.2	+	3	4	+
VSBY <.2	0	0	2	0
<10 & OR <.2	2	7	13	1
<20 & OR <.5	3	17	26	1
VSBY >.5	4	33	52	2
>50 & >.5	1	18	26	1
NC & >10	1	15	25	1

220

5

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<.5 & OR <.2	0	2	1	0
VSBY <.2	0	0	0	0
<10 & OR <.2	1	8	5	0
<20 & OR <.5	2	21	13	+
VSBY >.5	4	58	37	+
>50 & >.5	2	31	21	0
NC & >10	1	30	20	0

588

6

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	+	+	+	0
<.5 & OR <.2	1	3	2	+
VSBY <.2	+	+	+	+
<10 & OR <.2	3	13	7	+
<20 & OR <.5	4	28	14	+
VSBY >.5	13	60	22	1
>50 & >.5	8	32	7	+
NC & >10	7	28	5	0

756

7

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	1	0	0
VSBY <.2	0	0	0	0
<10 & OR <.2	0	2	1	0
<20 & OR <.5	0	4	3	0
VSBY >.5	1	35	58	5
>50 & >.5	0	32	53	5
NC & >10	0	32	52	5

120

8

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	+	+	0
VSBY <.2	0	0	0	0
<10 & OR <.2	0	2	2	0
<20 & OR <.5	0	3	8	+
VSBY >.5	0	25	73	2
>50 & >.5	0	20	84	2
NC & >10	0	20	82	2

578

9

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<.5 & OR <.2	0	+	1	0
VSBY <.2	0	0	0	0
<10 & OR <.2	0	3	10	1
<20 & OR <.5	0	10	33	4
VSBY >.5	+	21	71	7
>50 & >.5	+	7	27	2
NC & >10	+	7	25	2

782

10

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<.5 & OR <.2	+	3	1	+
VSBY <.2	0	+	0	0
<10 & OR <.2	+	14	8	+
<20 & OR <.5	2	32	14	1
VSBY >.5	3	83	32	1
>50 & >.5	1	18	12	+
NC & >10	1	17	11	+

1089

14

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	+
<.5 & OR <.2	0	0	+	+
VSBY <.2	0	0	0	0
<10 & OR <.2	+	2	4	1
<20 & OR <.5	+	5	13	2
VSBY >.5	2	31	55	11
>50 & >.5	1	23	36	8
NC & >10	1	22	35	8

630

15

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	0	2	1
VSBY <.2	0	0	0	0
<10 & OR <.2	0	8	18	3
<20 & OR <.5	1	12	29	8
VSBY >.5	3	27	52	17
>50 & >.5	1	8	21	8
NC & >10	1	8	21	8

117

16

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	1	0	0
<.5 & OR <.2	1	1	1	0
VSBY <.2	0	0	0	0
<10 & OR <.2	2	8	18	0
<20 & OR <.5	3	15	42	8
VSBY >.5	3	26	61	8
>50 & >.5	0	8	8	0
NC & >10	0	8	8	0

118

17

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	+
<.5 & OR <.2	0	2	0	1
VSBY <.2	0	1	0	+
<10 & OR <.2	0	6	2	1
<20 & OR <.5	1	10	13	3
VSBY >.5	3	33	50	8
>50 & >.5	3	23	34	5
NC & >10	3	23	32	5

280

18

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	+
<.5 & OR <.2	0	1	3	1
VSBY <.2	0	0	+	1
<10 & OR <.2	+	4	9	3
<20 & OR <.5	1	11	22	5
VSBY >.5	3	30	49	13
>50 & >.5	2	18	24	8
NC & >10	2	16	23	7

431

19

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	0
<.5 & OR <.2	+	+	1	1
VSBY <.2	0	+	0	0
<10 & OR <.2	1	2	8	3
<20 & OR <.5	2	9	18	5
VSBY >.5	4	34	44	13
>50 & >.5	3	20	21	7
NC & >10	2	19	21	8

841

23

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	+	0
<.5 & OR <.2	0	1	1	1
VSBY <.2	0	+	+	1
<10 & OR <.2	+	3	6	3
<20 & OR <.5	1	8	14	7
VSBY >.5	4	28	43	18
>50 & >.5	3	17	26	10
NC & >10	3	16	25	9

1106

24

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	0
<.5 & OR <.2	0	1	2	1
VSBY <.2	0	1	1	0
<10 & OR <.2	0	5	9	2
<20 & OR <.5	1	11	19	7
VSBY >.5	4	32	48	10
>50 & >.5	2	19	28	5
NC & >10	2	18	27	4

323

25

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	+
<.5 & OR <.2	0	+	2	3
VSBY <.2	0	0	1	1
<10 & OR <.2	0	2	6	4
<20 & OR <.5	+	6	18	15
VSBY >.5	1	23	37	24
>50 & >.5	1	12	18	11
NC & >10	1	11	16	7

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26

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	1	3	1
VSBY <.2	0	0	1	0
<10 & OR <.2	1	8	9	4
<20 & OR <.5	1	12	22	4
VSBY >.5	4	30	54	8
>50 & >.5	3	18	24	4
NC & >10	3	15	21	4

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27

INSUFFICIENT DATA

28

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	0	0	0
VSBY <.2	0	0	0	0
<10 & OR <.2	0	0	0	0
<20 & OR <.5	0	0	47	7
VSBY >.5	0	20	60	13
>50 & >.5	0	13	20	7
NC & >10	0	13	20	7

16

32

INSUFFICIENT DATA

33

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	2	0
<.5 & OR <.2	0	0	2	5
VSBY <.2	0	0	0	0
<10 & OR <.2	0	9	10	8
<20 & OR <.5	2	6	23	15
VSBY >.5	3	18	53	10
>50 & >.5	2	8	23	3
NC & >10	2	8	18	2

62

34

INSUFFICIENT DATA

35

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	0	0	10
VSBY <.2	0	0	0	10
<10 & OR <.2	0	0	5	14
<20 & OR <.5	0	0	5	29
VSBY >.5	0	5	14	38
>50 & >.5	0	0	0	18
NC & >10	0	0	0	18

61

36

INSUFFICIENT DATA

37

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<.5 & OR <.2	0	0	0	7
VSBY <.2	0	0	0	7
<10 & OR <.2	0	0	0	21
<20 & OR <.5	0	0	7	21
VSBY >.5	0	0	7	43
>50 & >.5	0	0	0	28
NC & >10	0	0	0	14

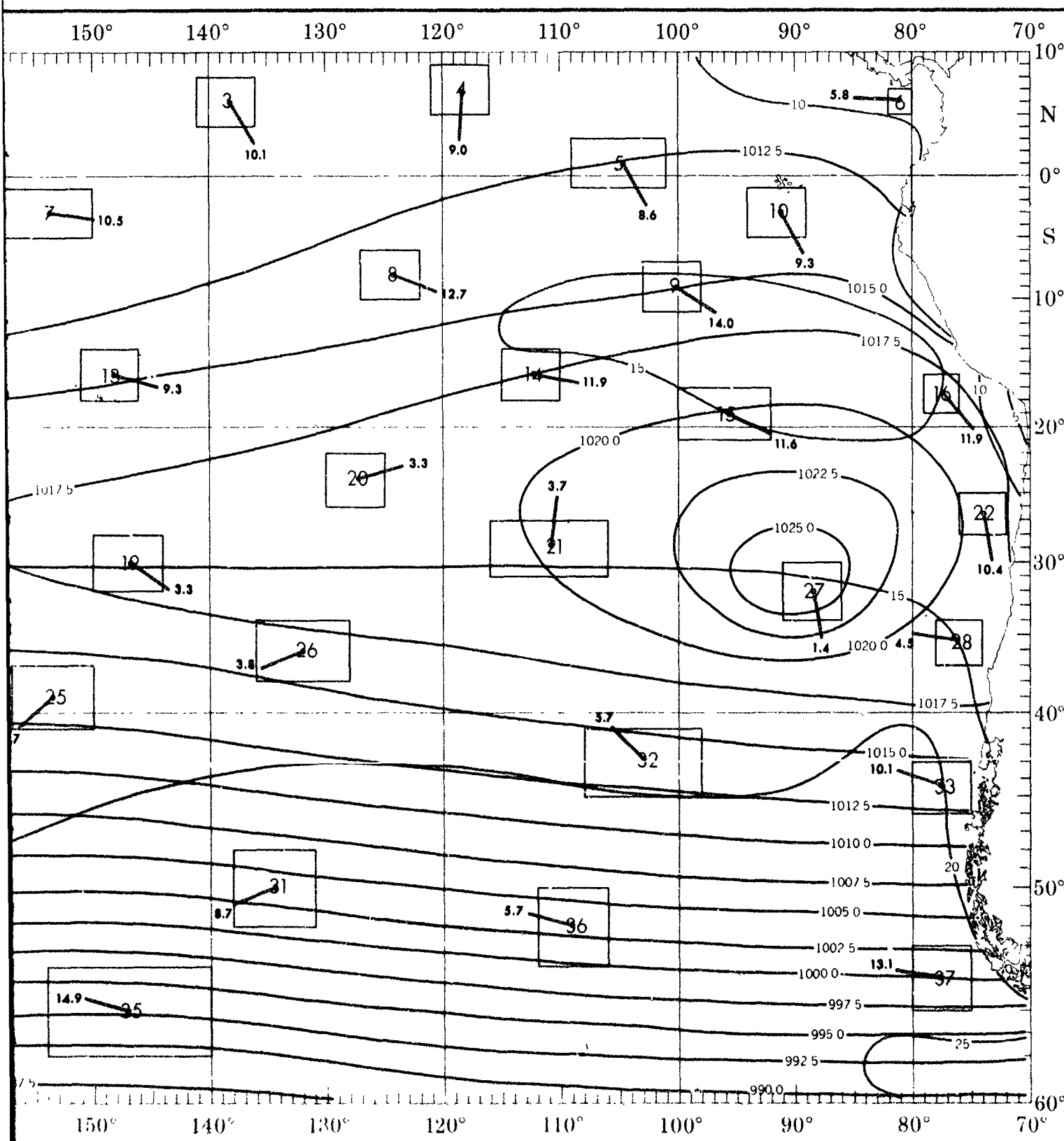
14

objective compilation of available data for specified areas without regard to suspected biases. opposite page) are based on all available data subjectively adjusted where bias was evident.

SEA LEVEL PRES



SEA LEVEL PRESSURE AND MEAN WIND



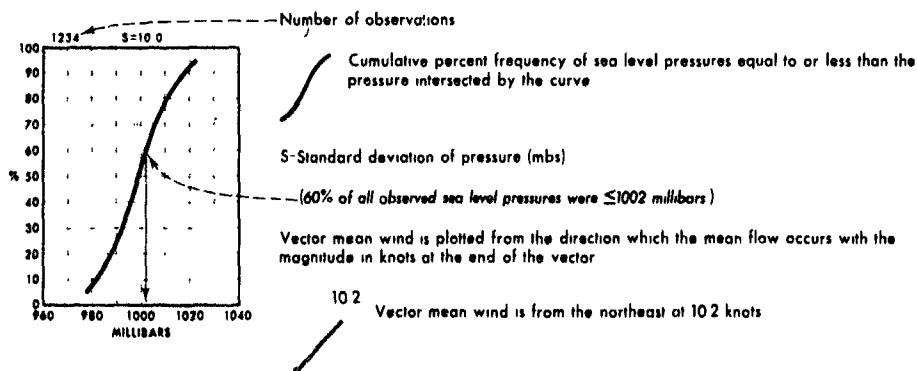
1

1

2

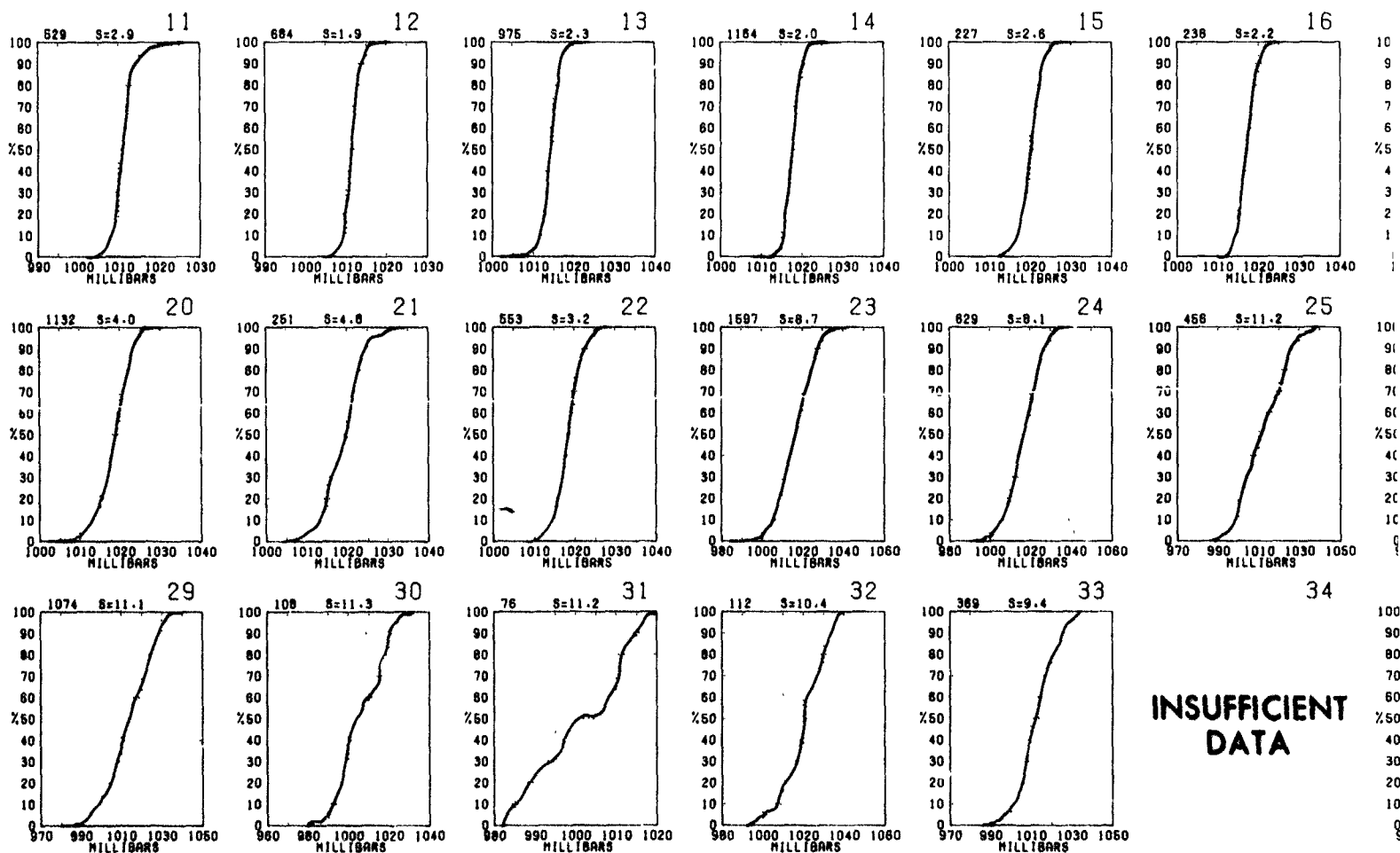
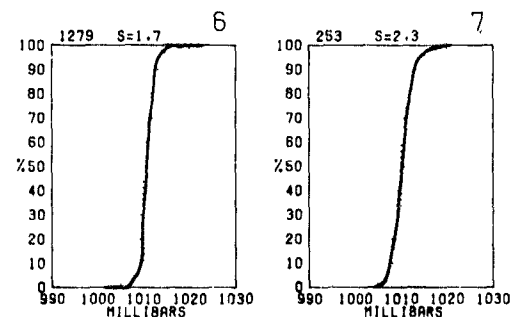
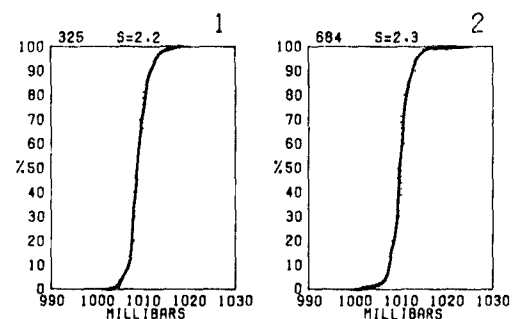
SEA LEVEL PRESSURE

Sea level pressure and mean wind



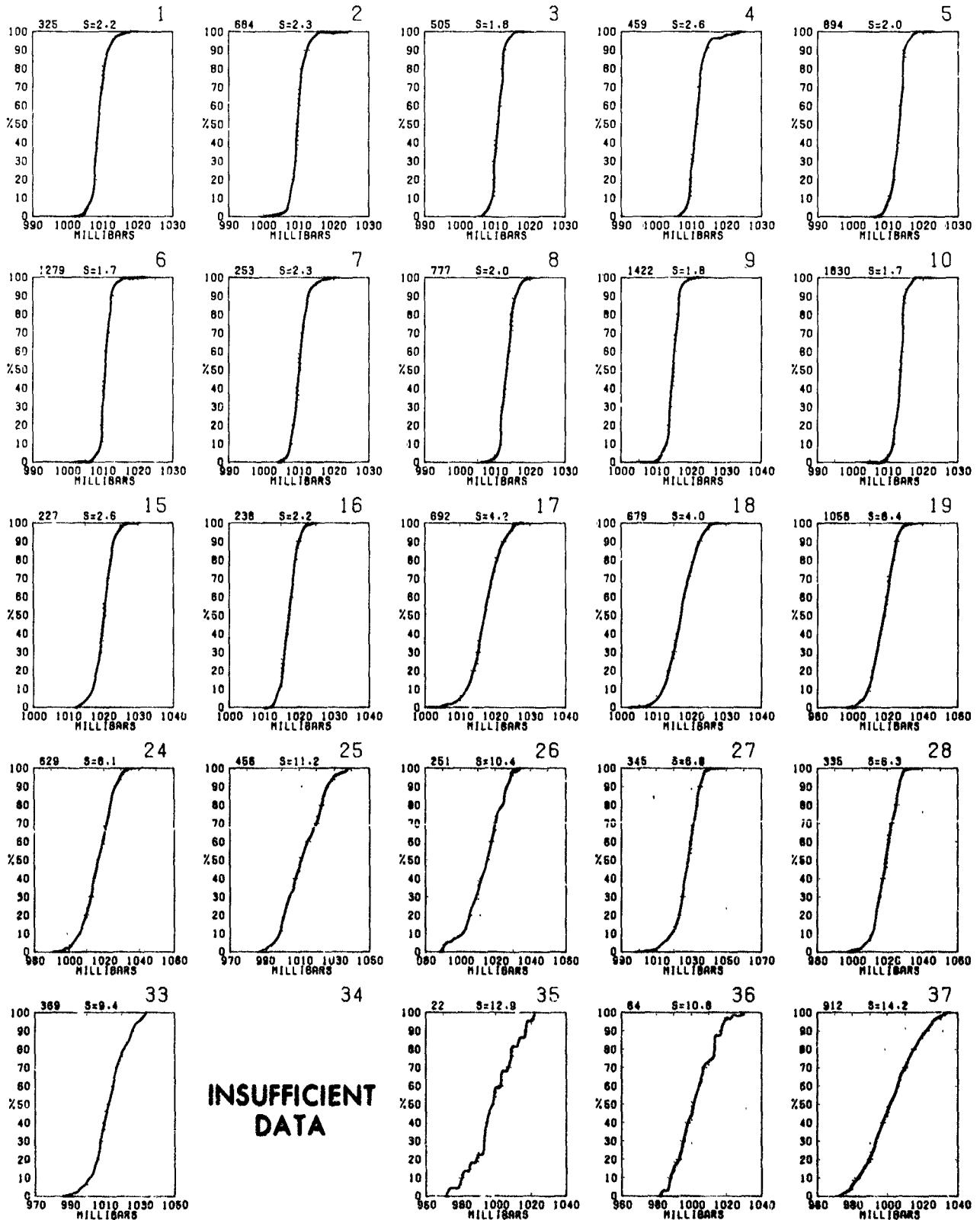
BLUE LINE Scalar mean wind speed (kts)

RED LINE Mean sea level pressure (mbs)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

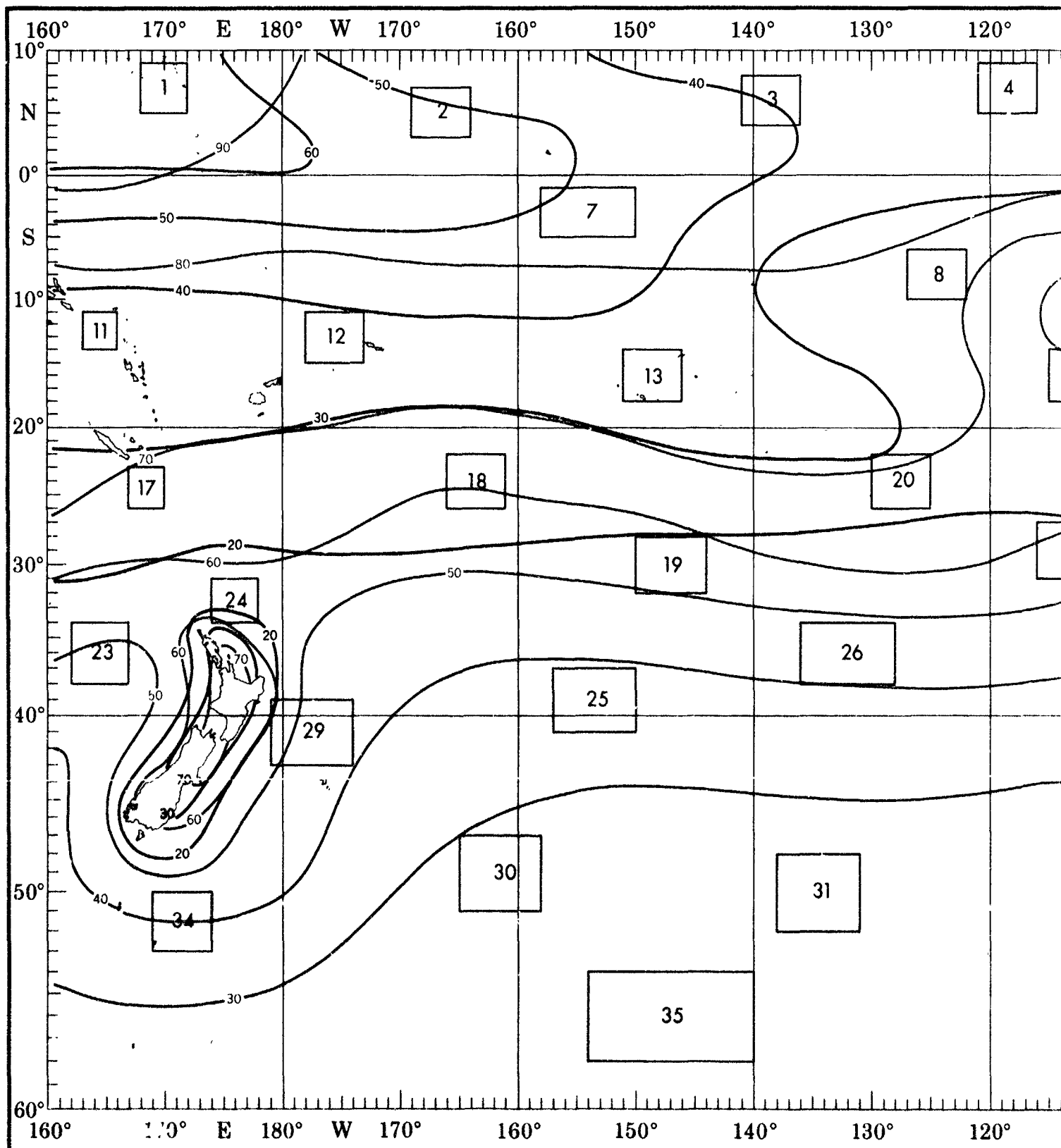
AUGUST



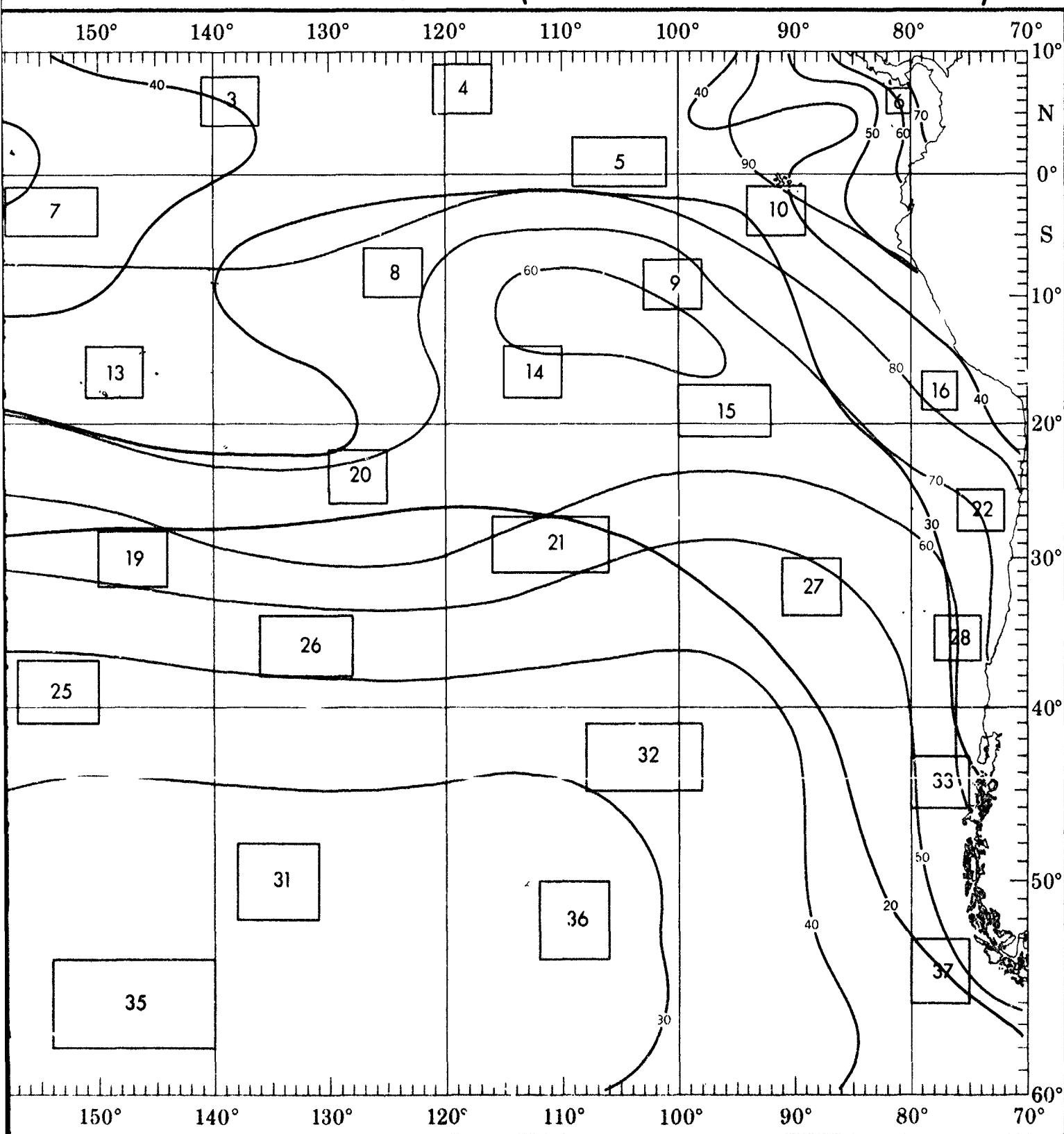
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

AUGUST

WAVES



WAVES (<1.5 AND <2.5 METERS)



7

1

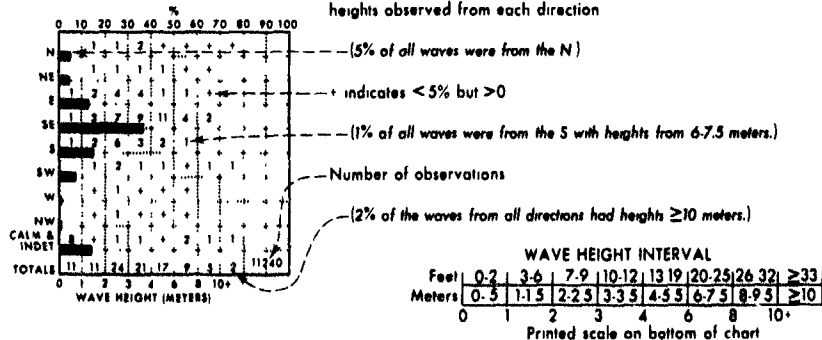
2

WAVE DIRECTION AND HEIGHT

Wave direction and height

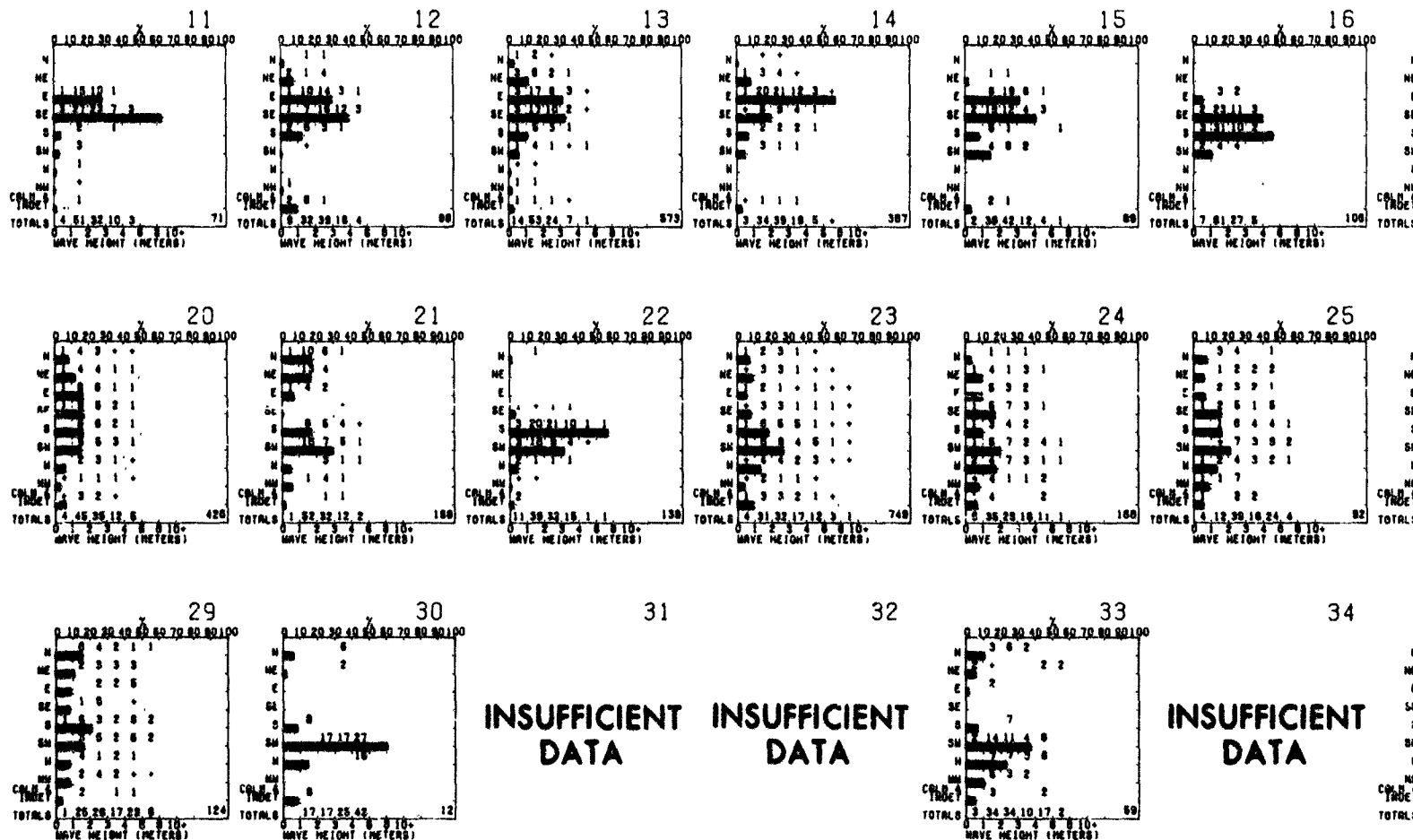
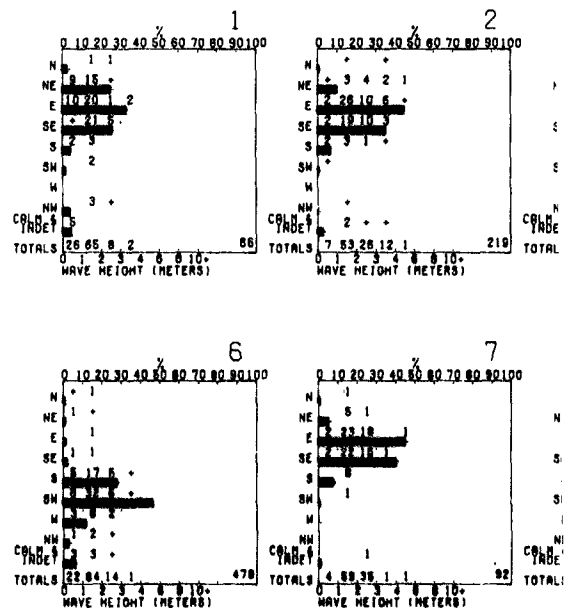
Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE Percent frequency of wave height <1.5 meters (5 feet)

RED LINE Percent frequency of wave height <2.5 meters (8 feet)

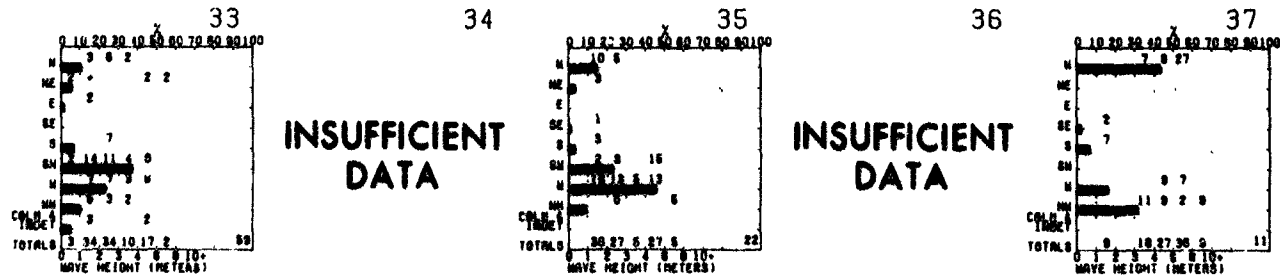
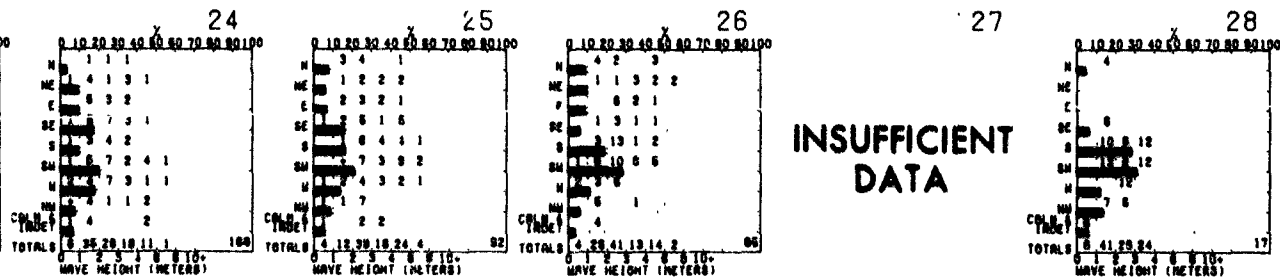
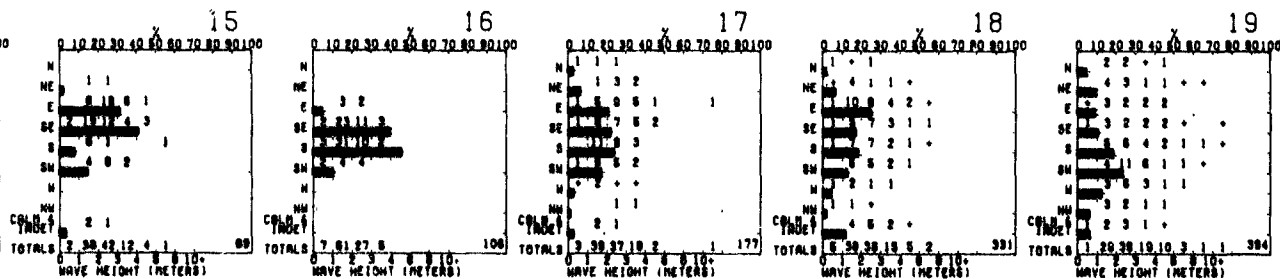
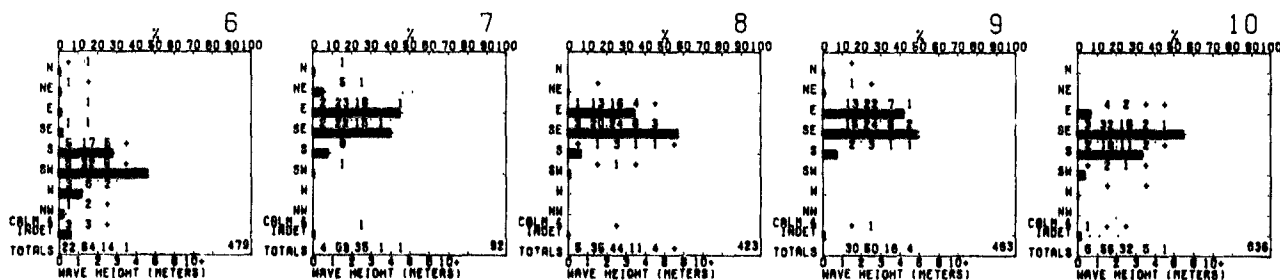
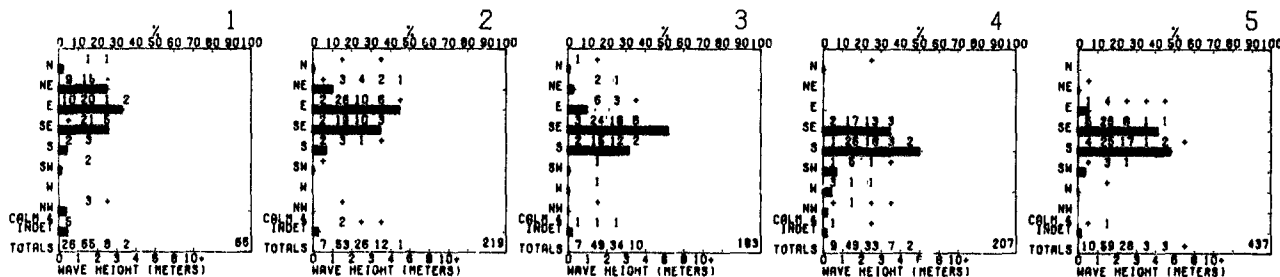


Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

HEIGHT

AUGUST

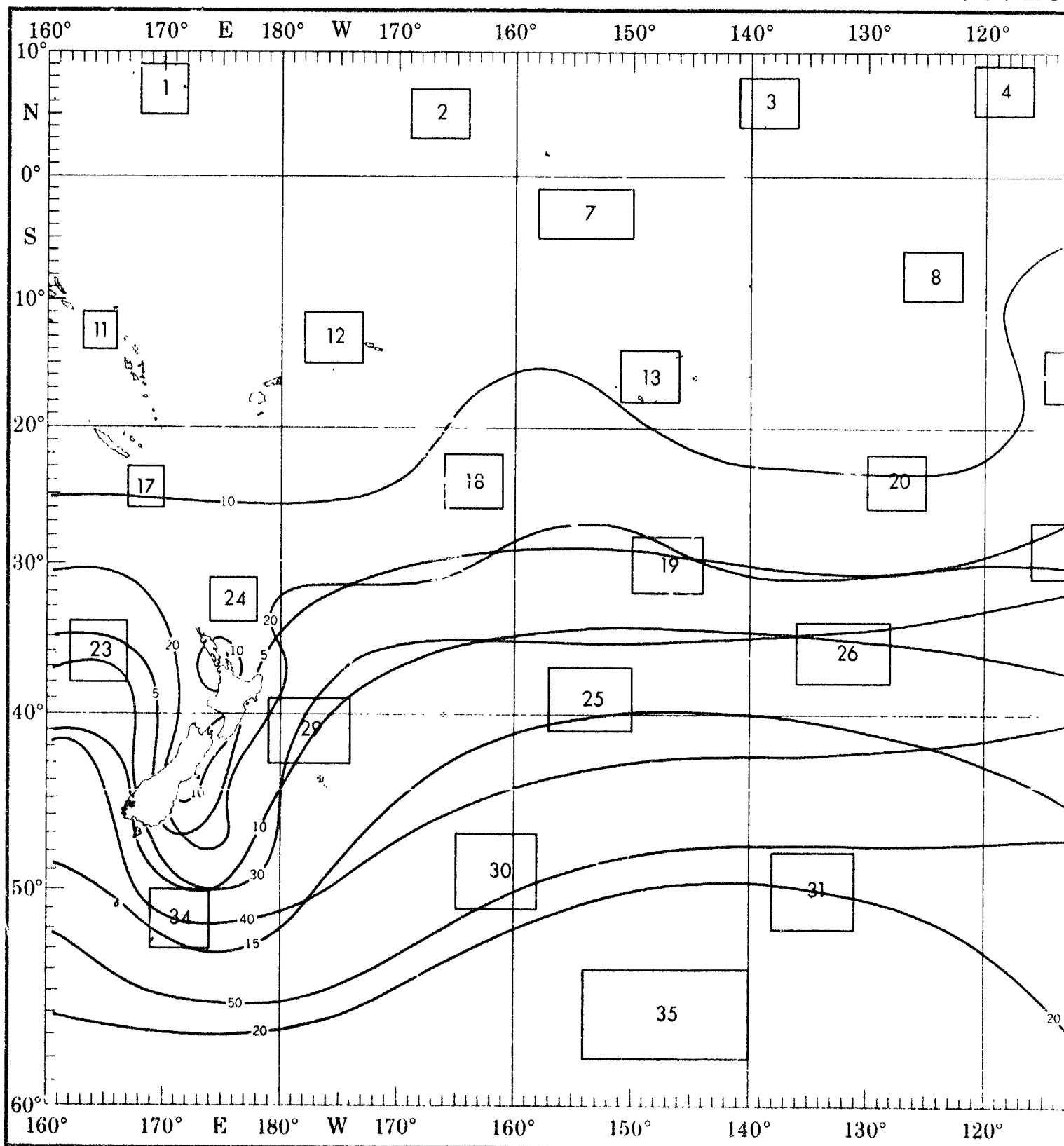
ency of waves from
percent frequency of wave



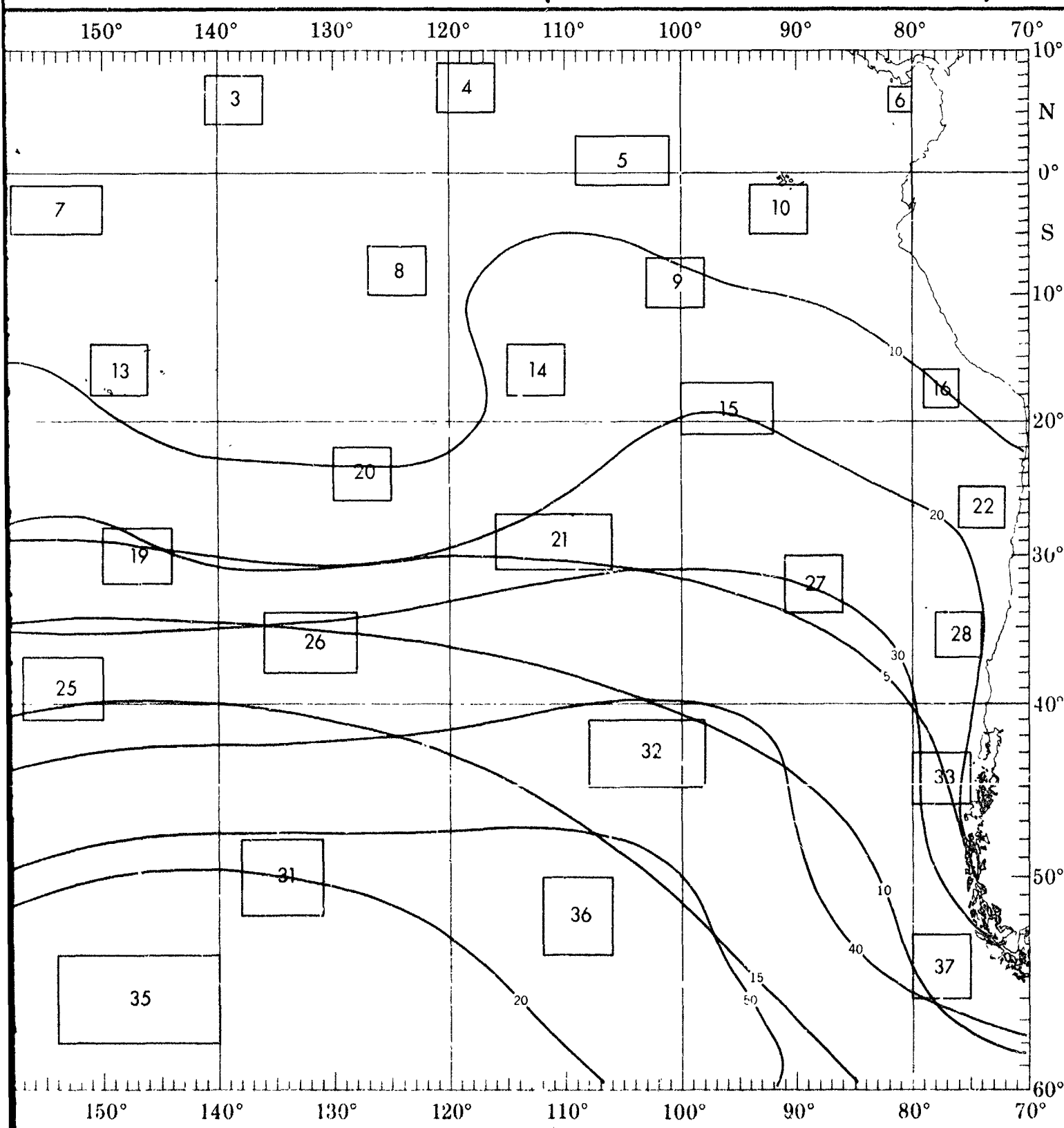
objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

AUGUST

WAVES



WAVES (≥ 3.5 AND ≥ 6 METERS)

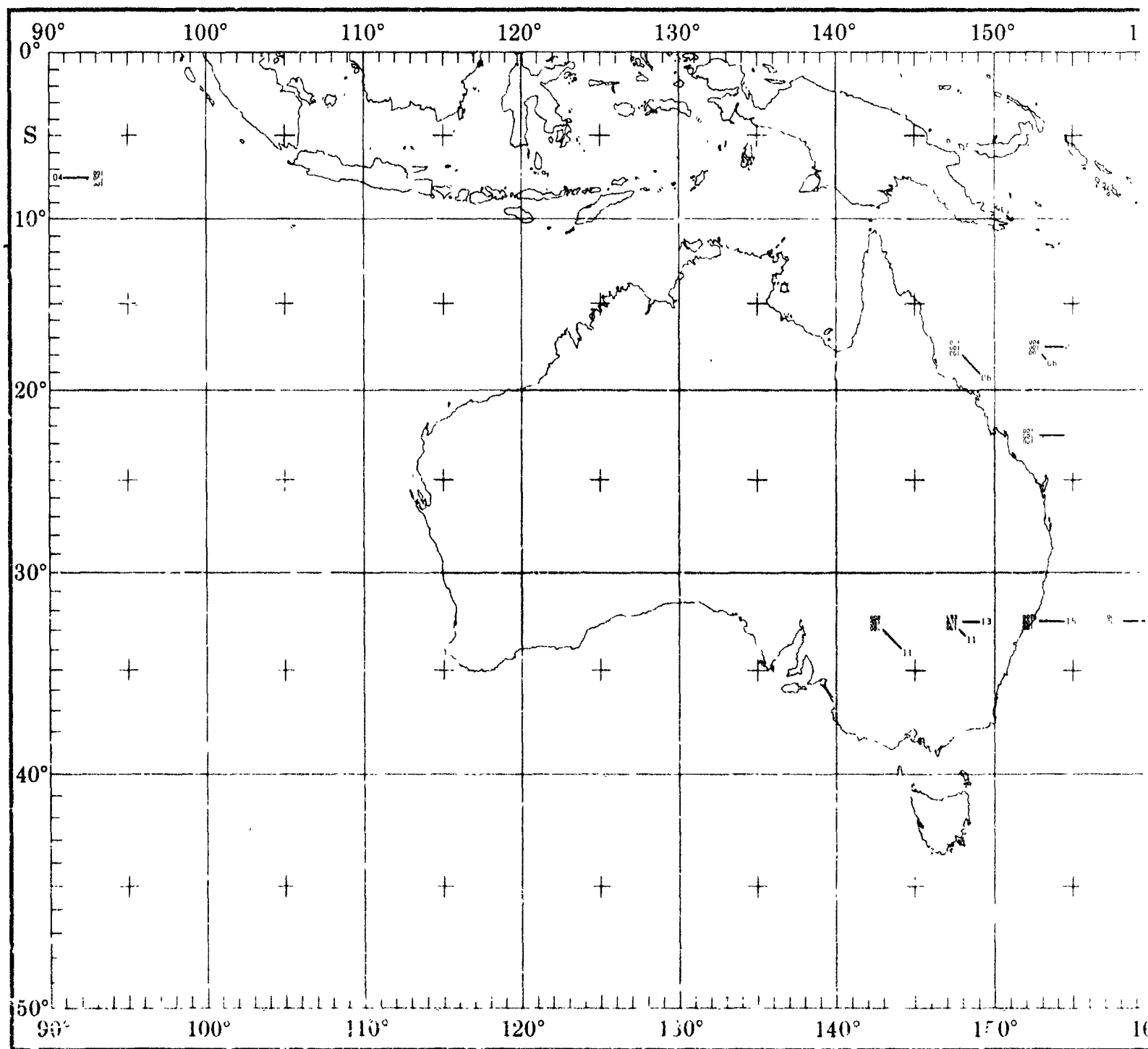


1

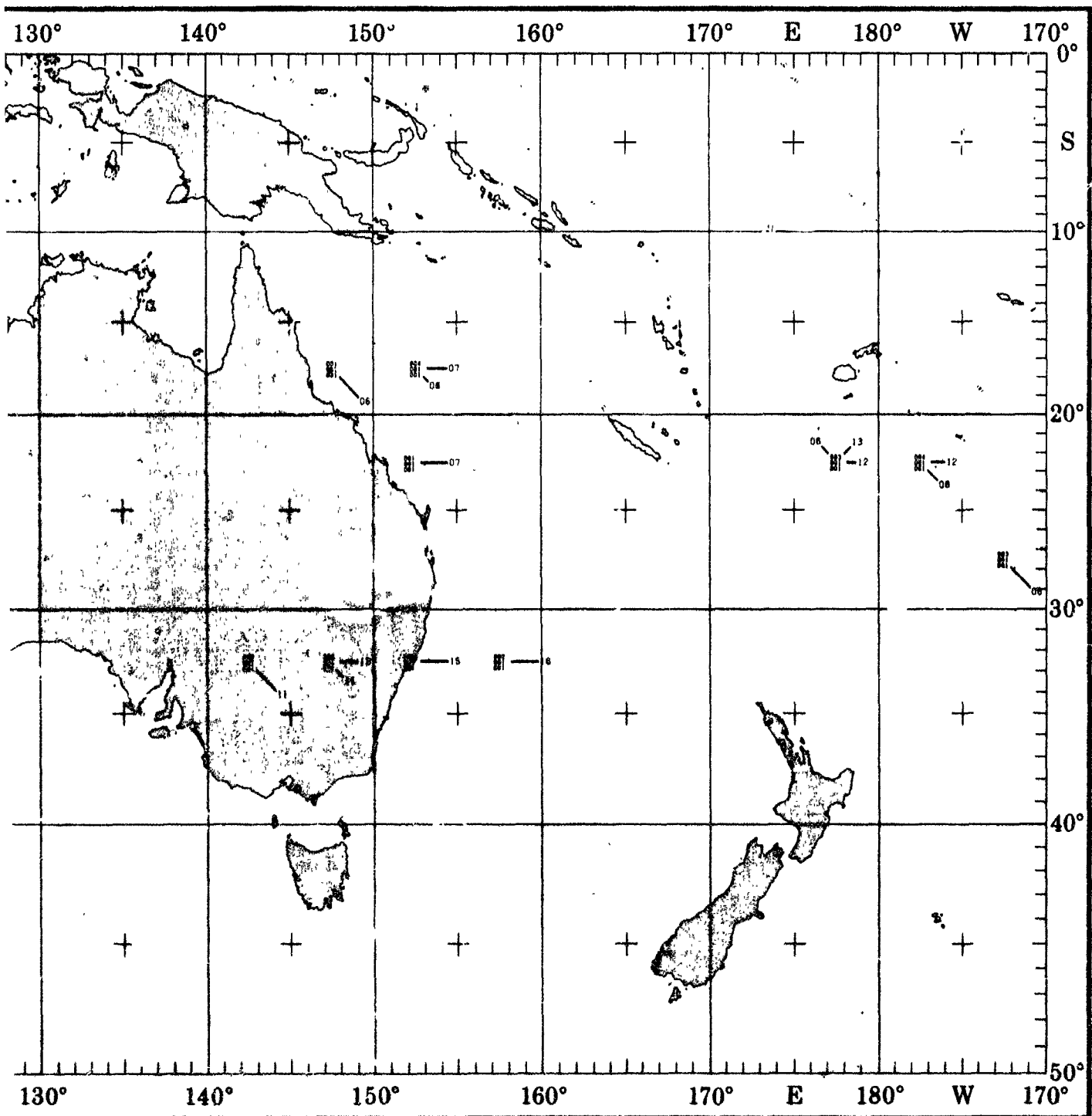
1

2

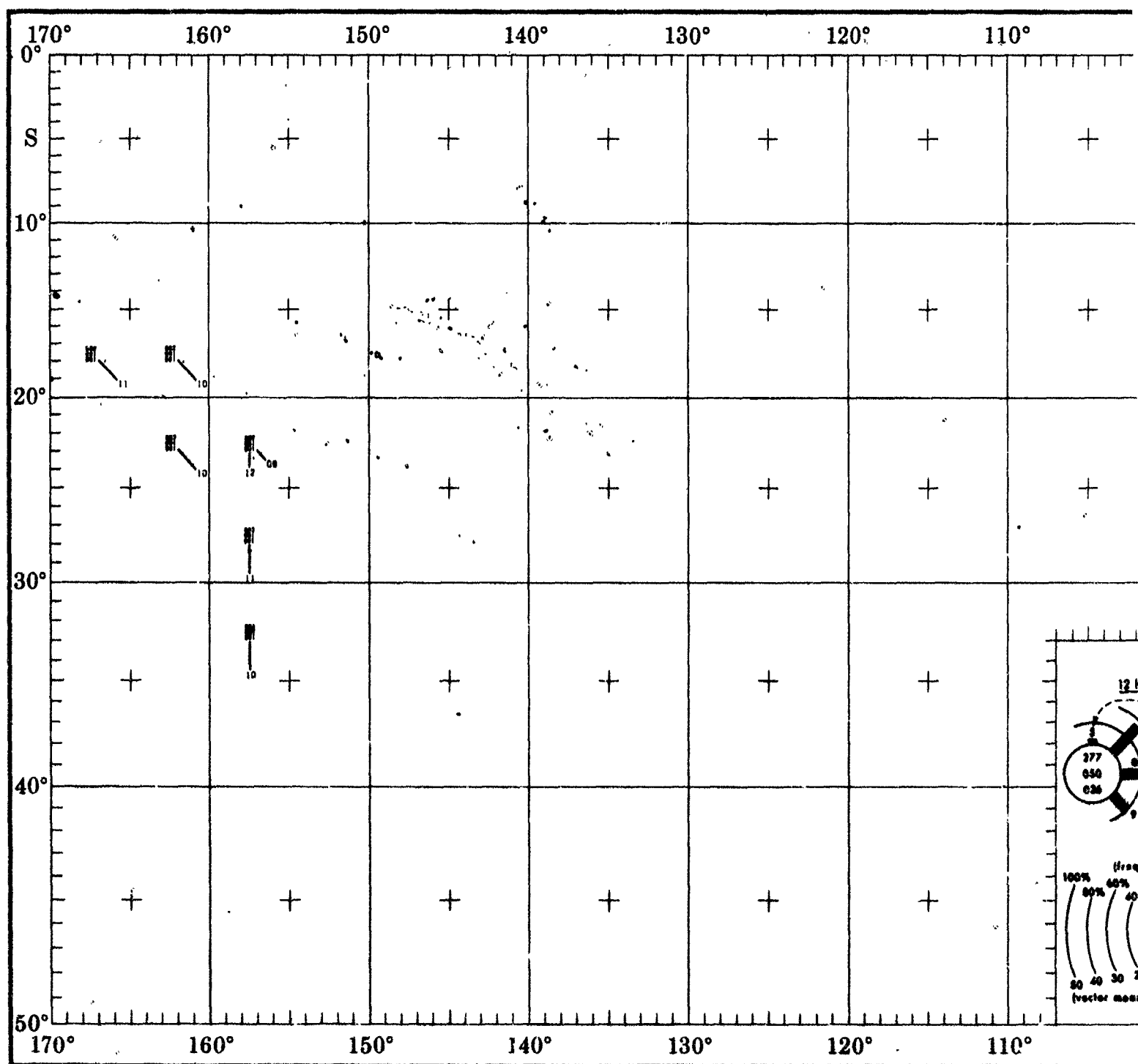
AUGUST



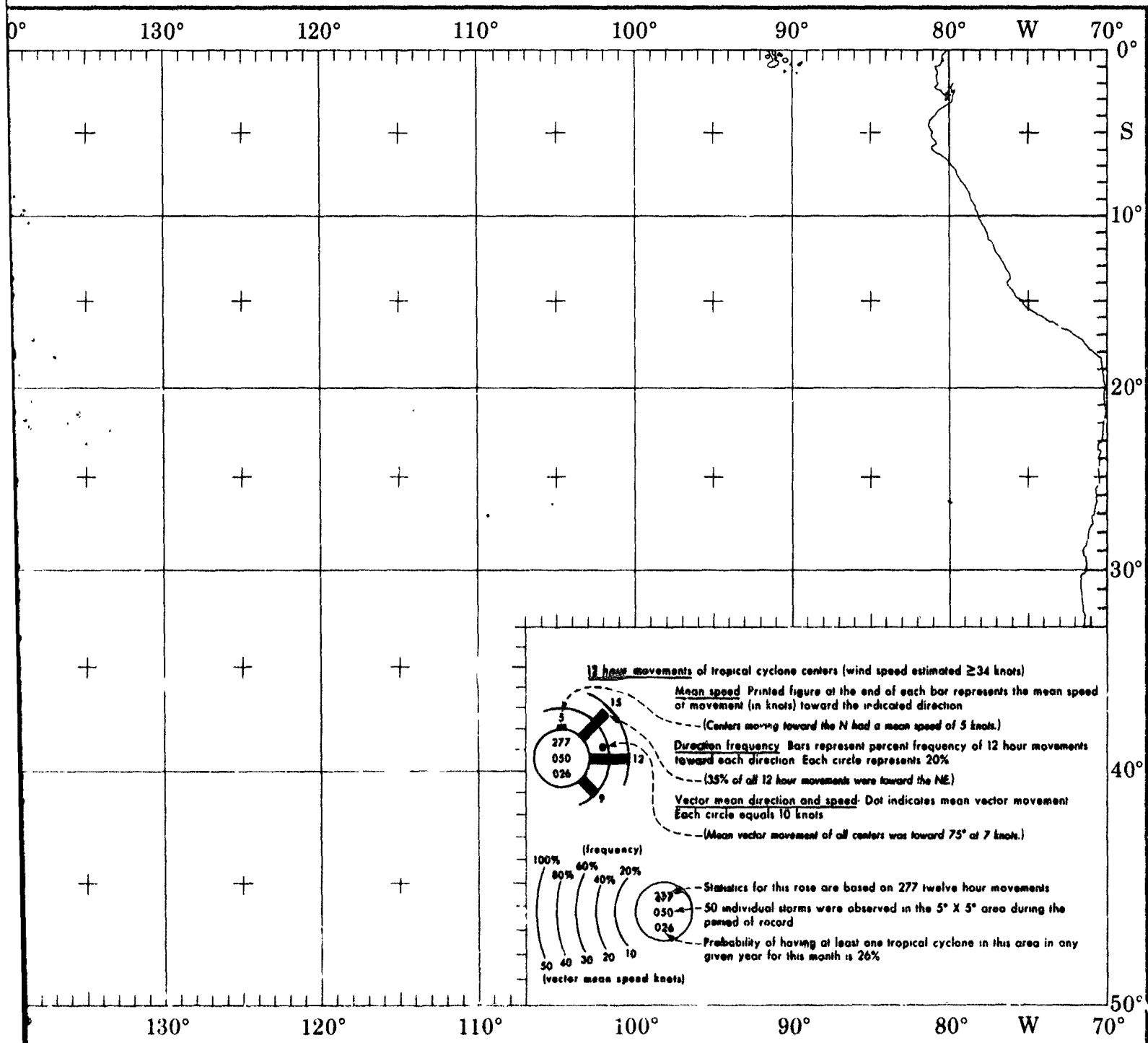
TROPICAL CYCLONE



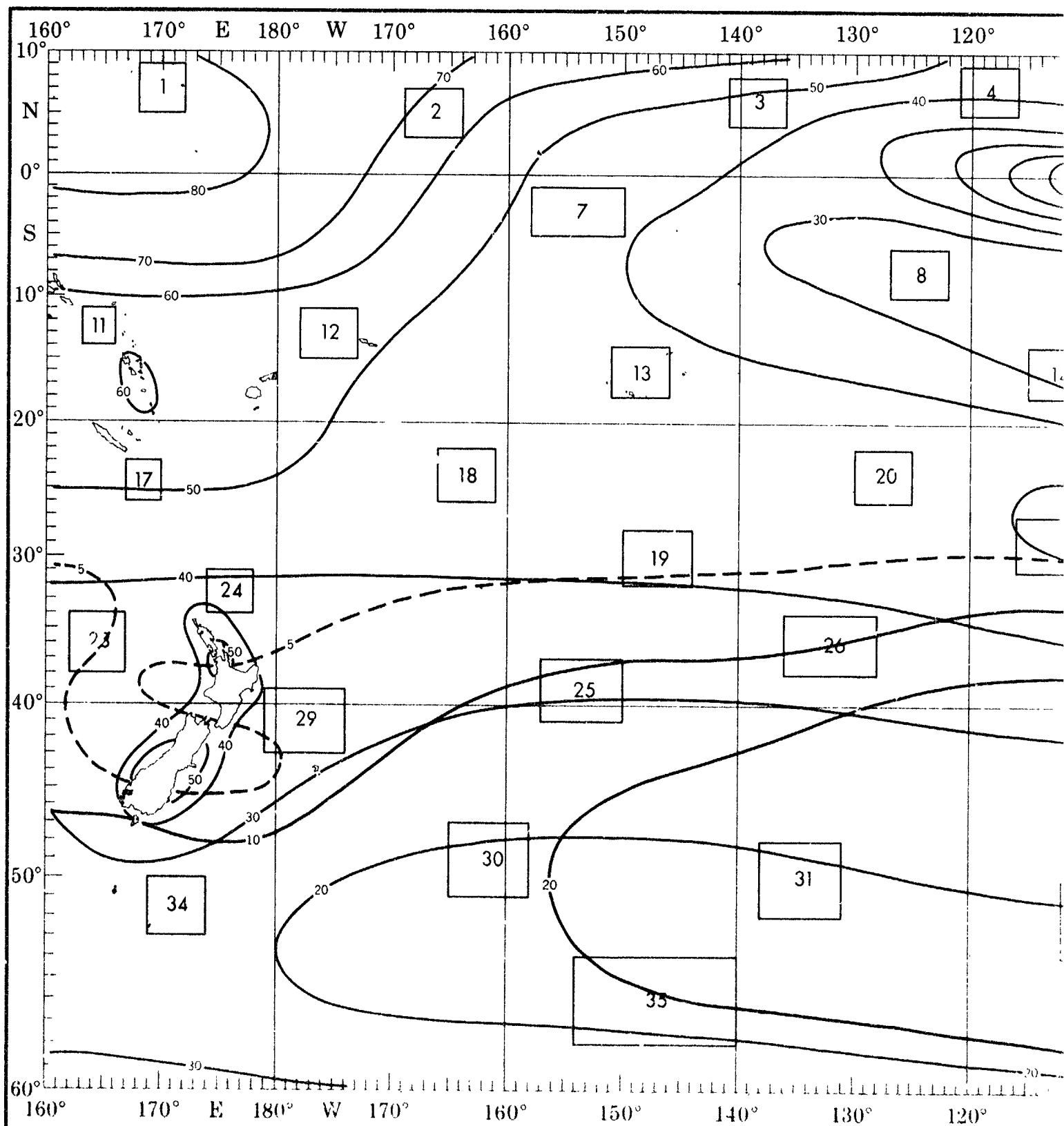
TROPICAL CYCLONE



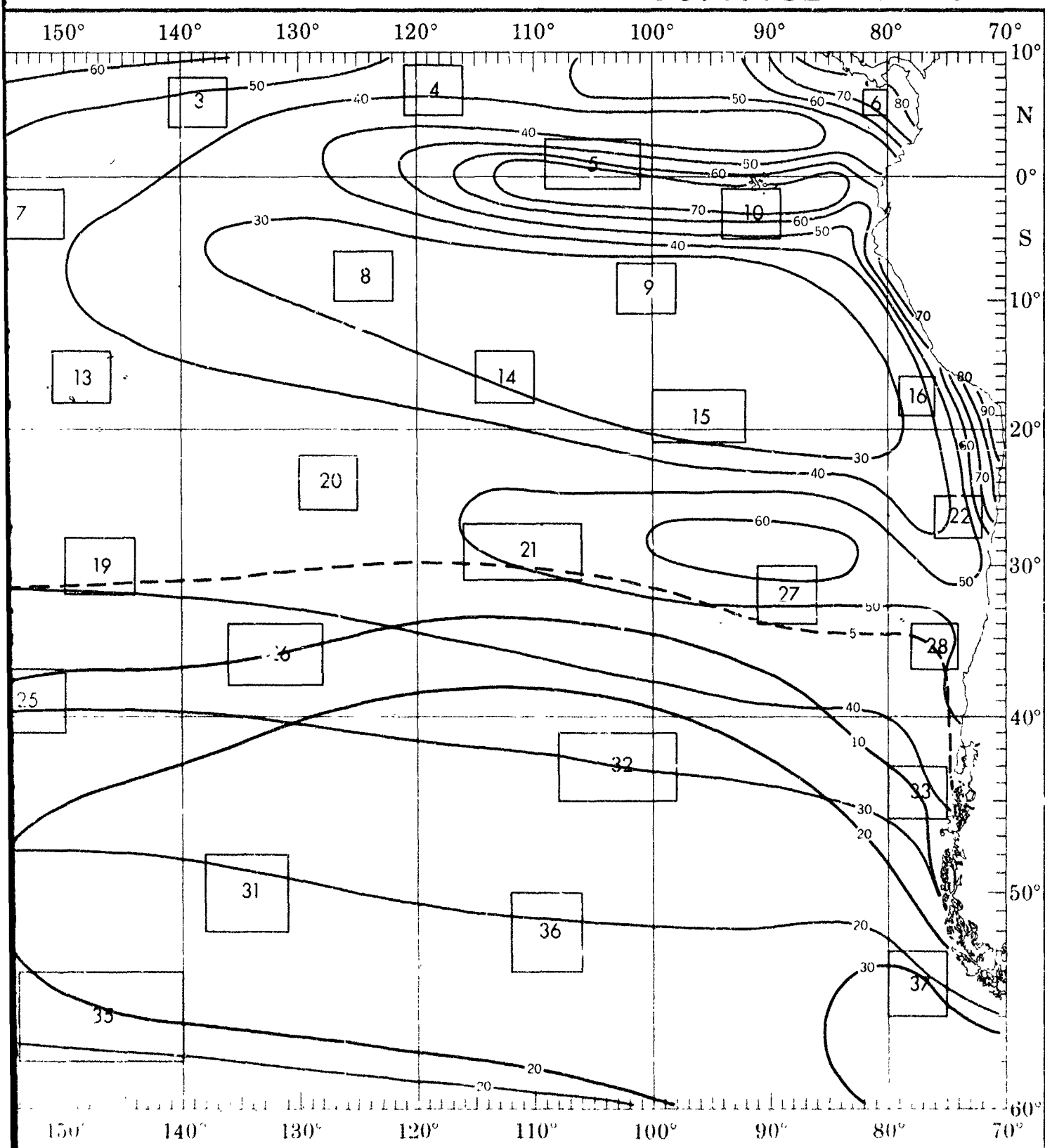
AUGUST



SEPTEMBER

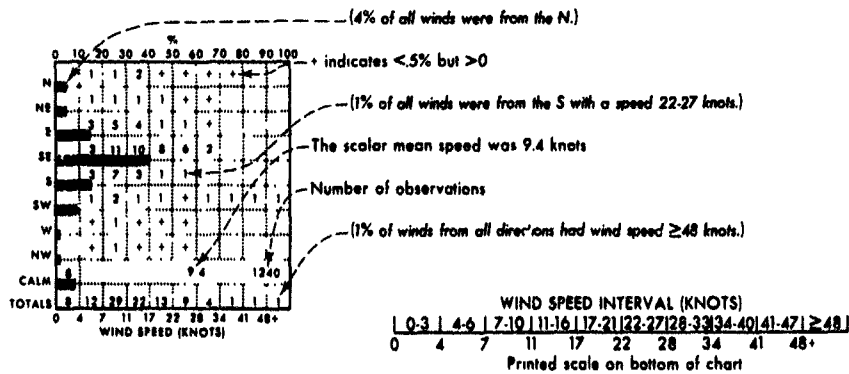


SURFACE WINDS



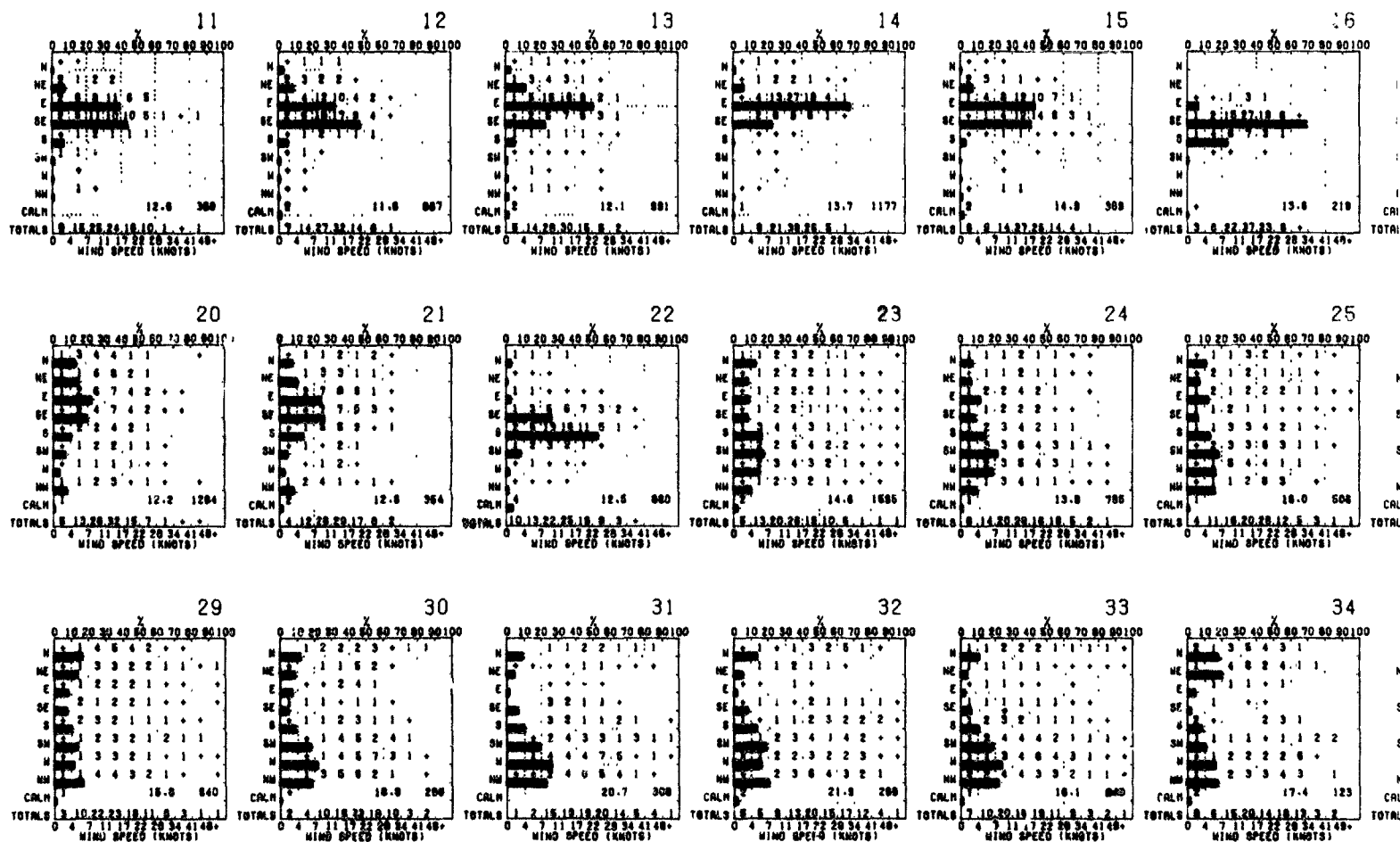
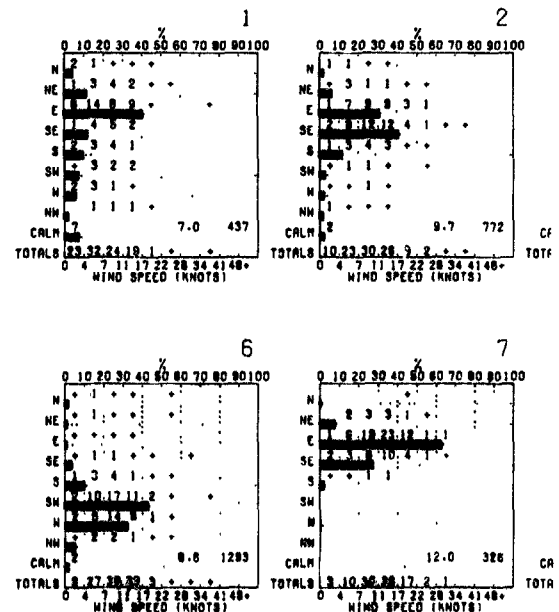
WIND DIRECTION AND SPEED

Direction frequency (top scale) Bars represent percent frequency of winds observed from each direction Speed frequency (bottom scale). Printed figures represent percent frequency of wind speeds observed from each direction



BLUE LINE Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

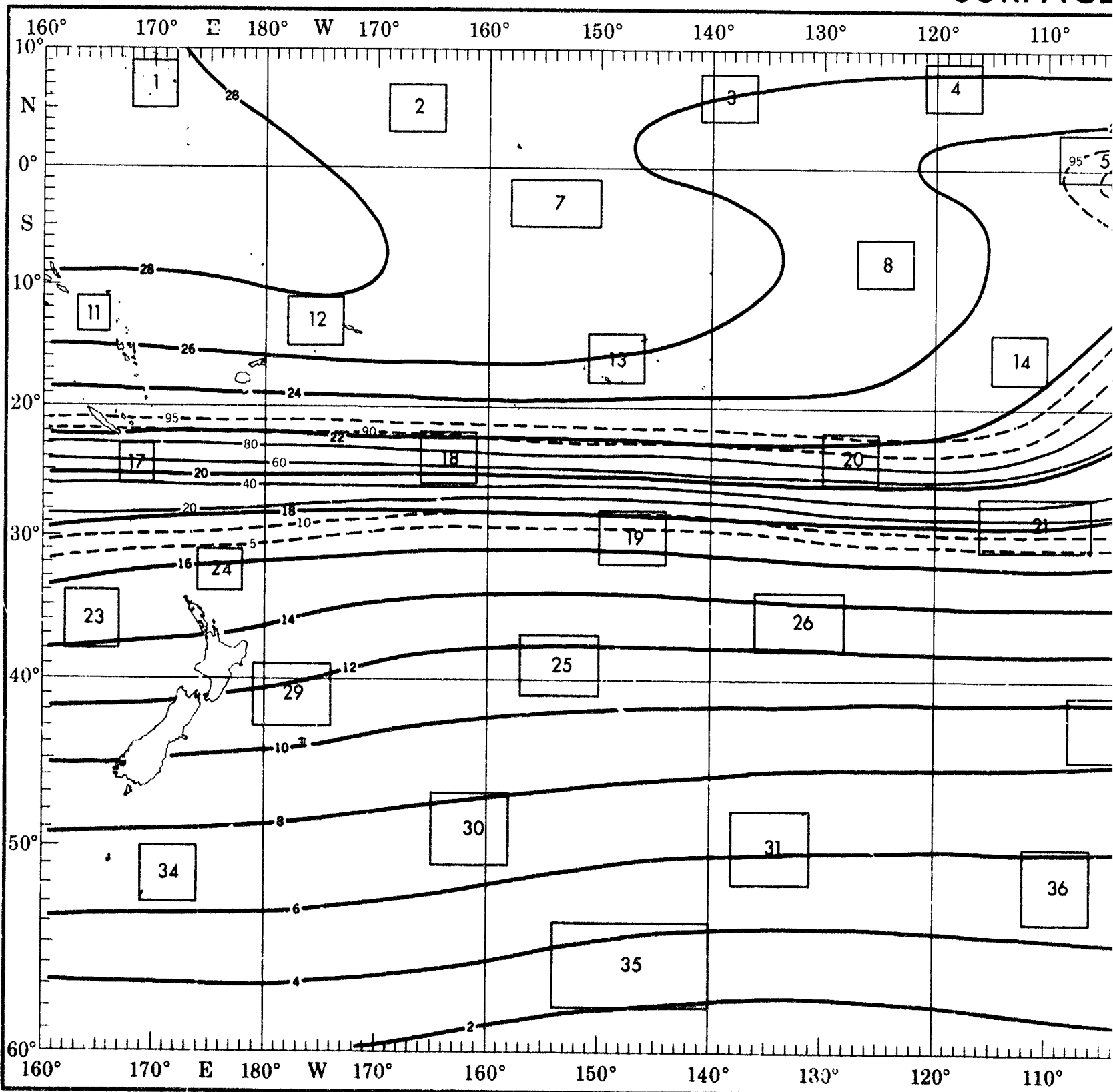


Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

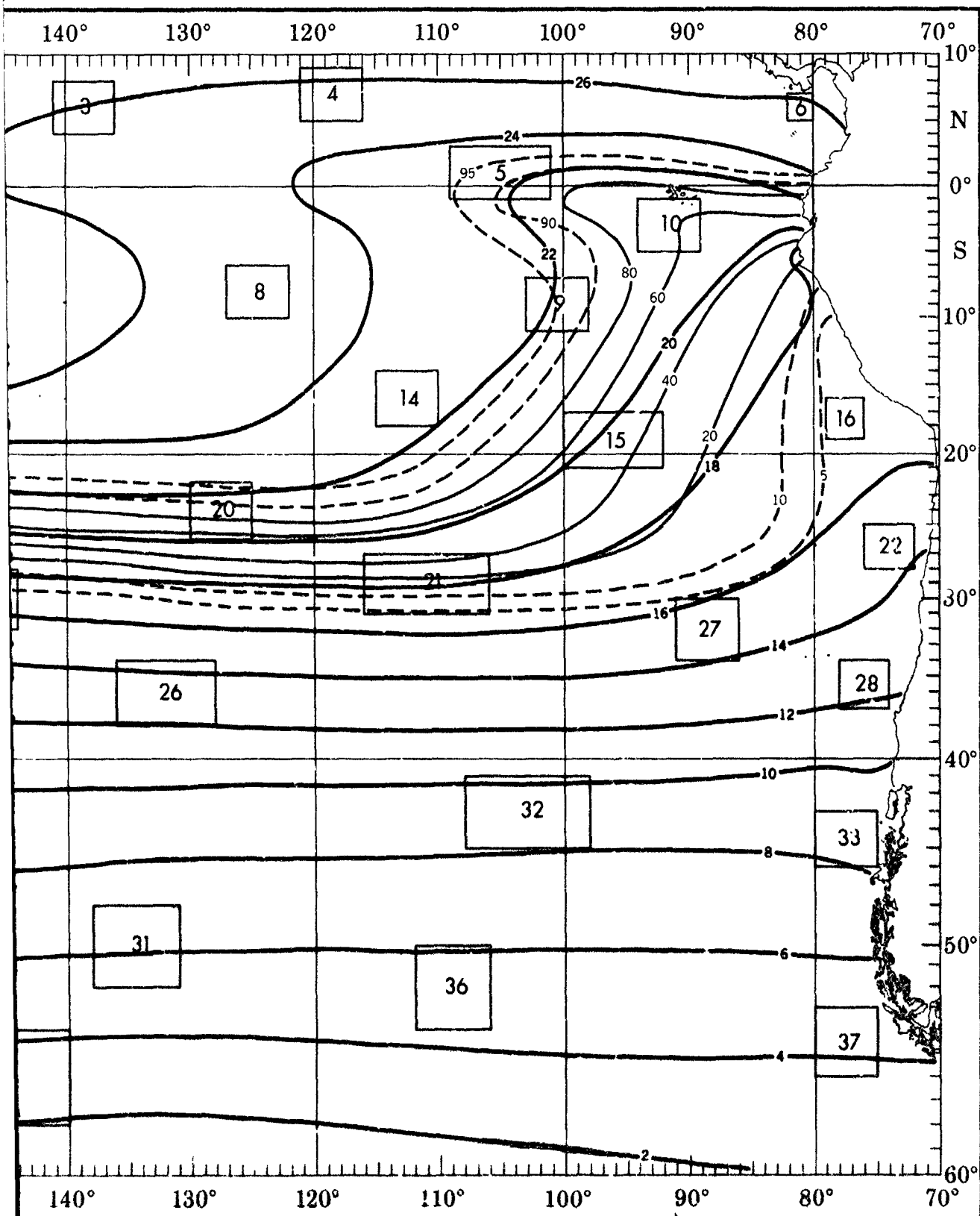
SEPTEMBER

SEPTEMBER

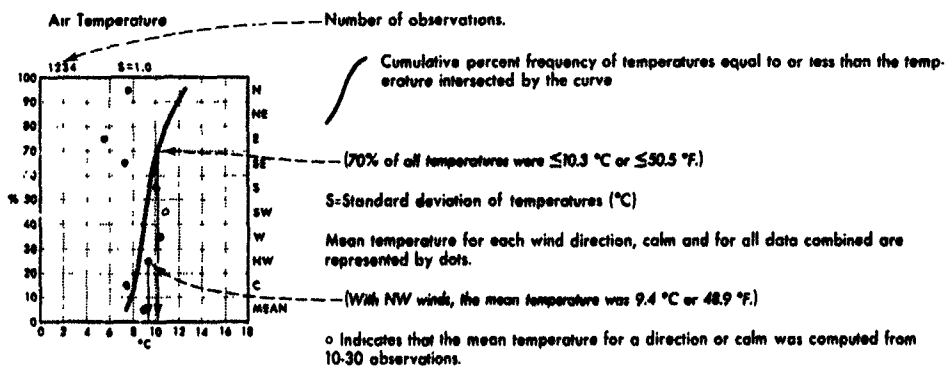
SURFACE



SURFACE AIR TEMPERATURE



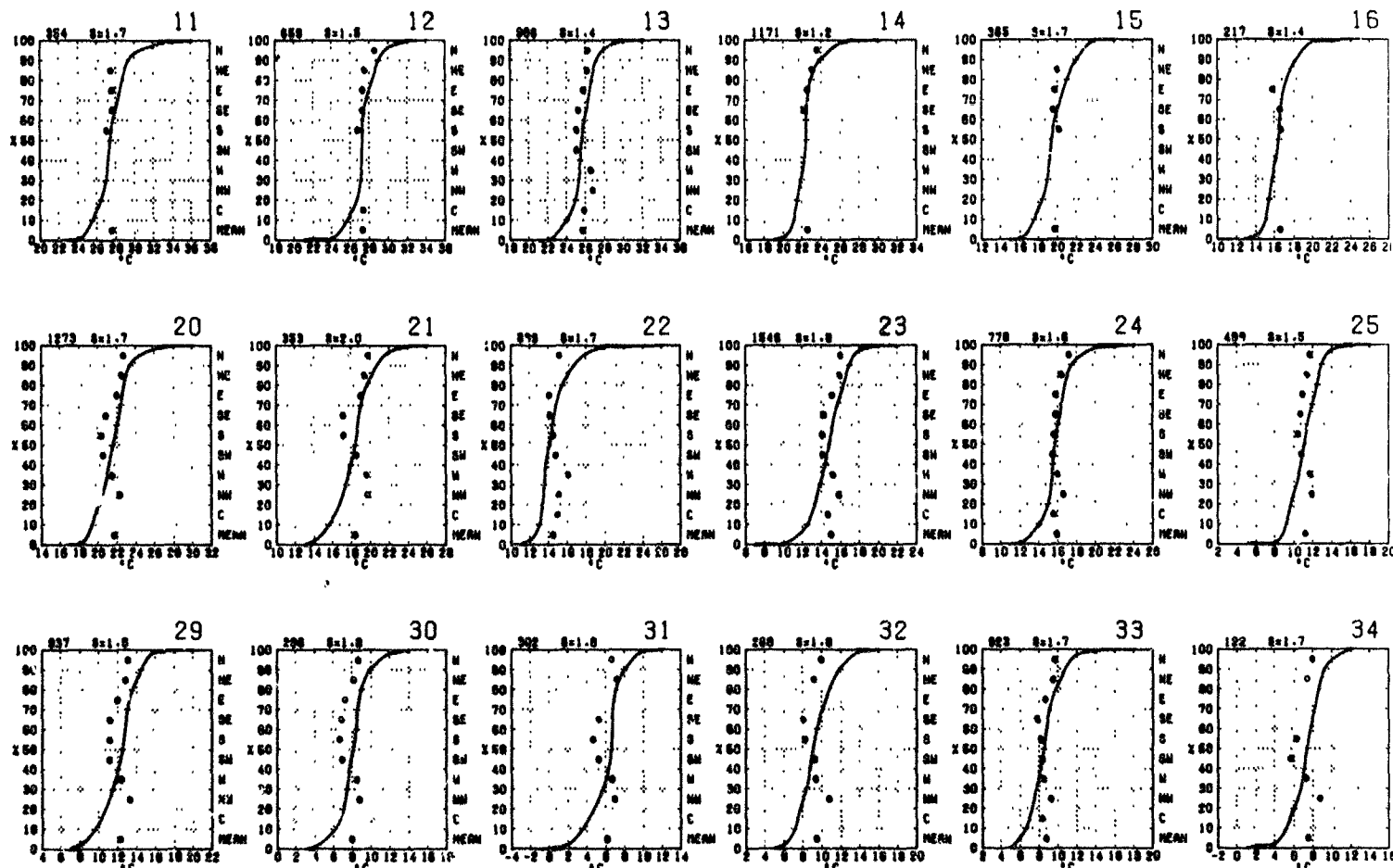
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available

BLACK LINE - Mean air temperature ($^\circ\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^\circ\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without reg. The isopleth analyses (opposite page) are based on all available data subjectively adjusted

ATURE

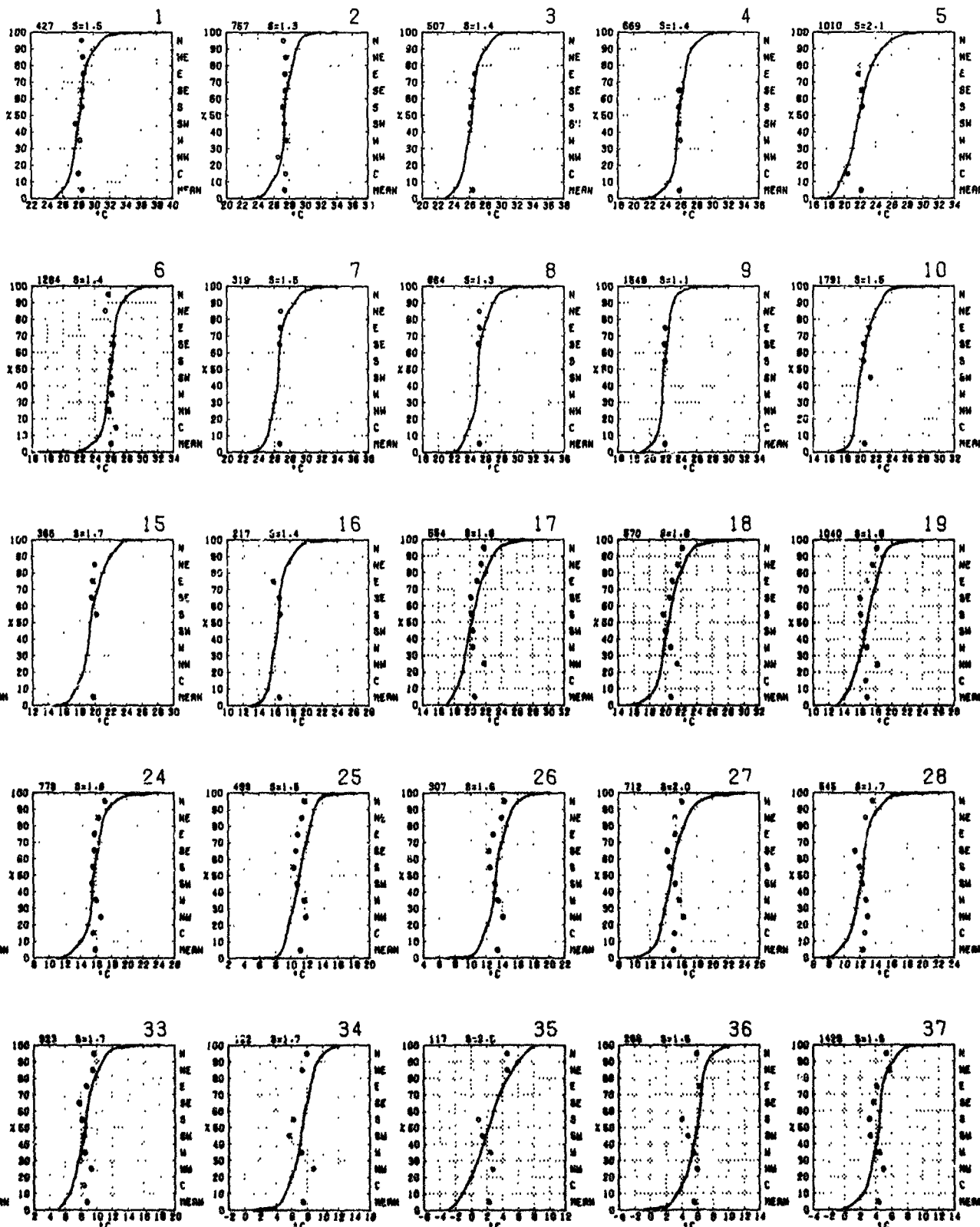
SEPTEMBER

to or less than the temp.

data combined are

was computed from

able

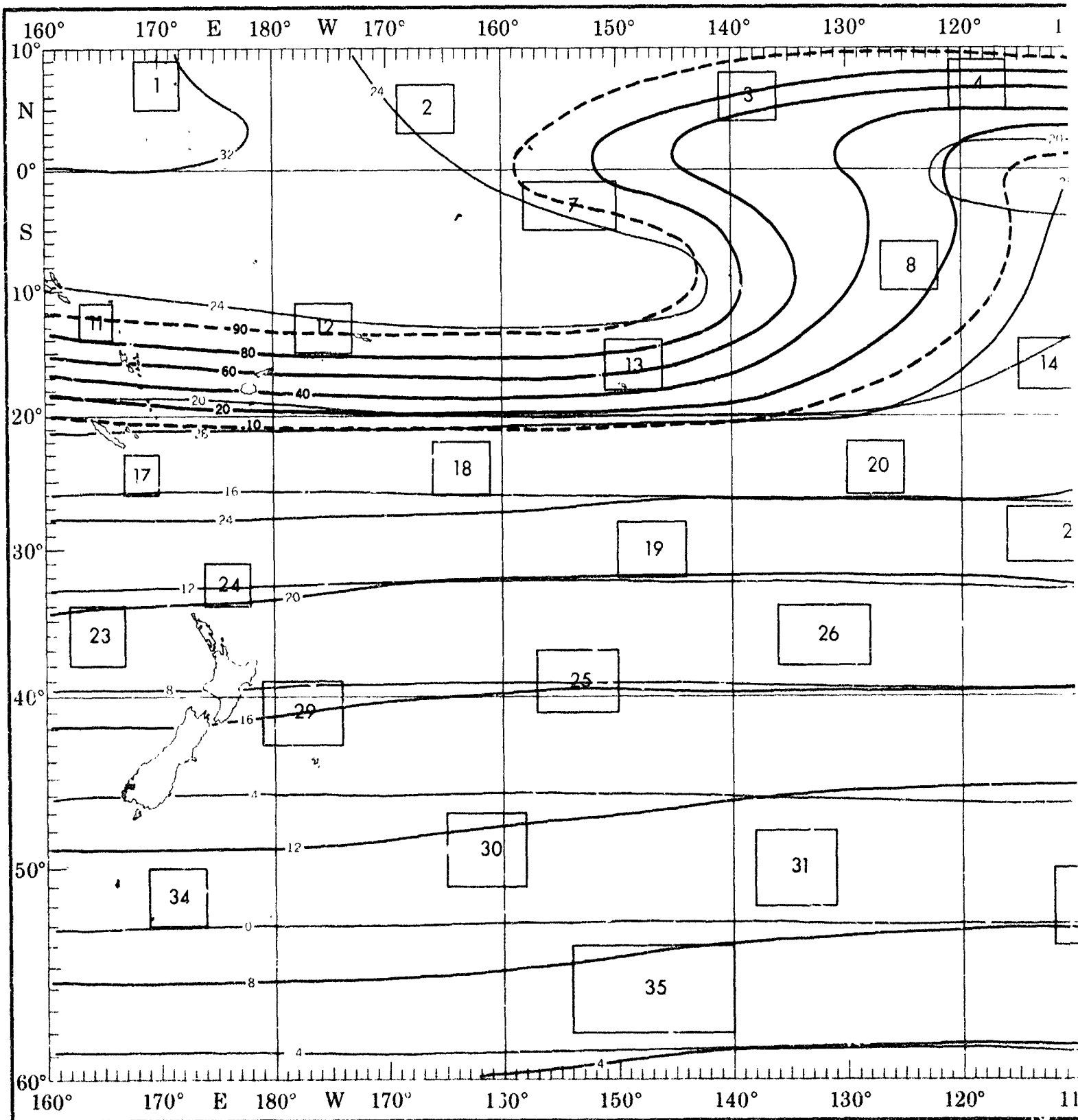


object - compilation of available data for specified areas without regard to suspected bias.
 (opposite page) are based on all available data subjectively adjusted where bias was evident.

2

SEPTEMBER

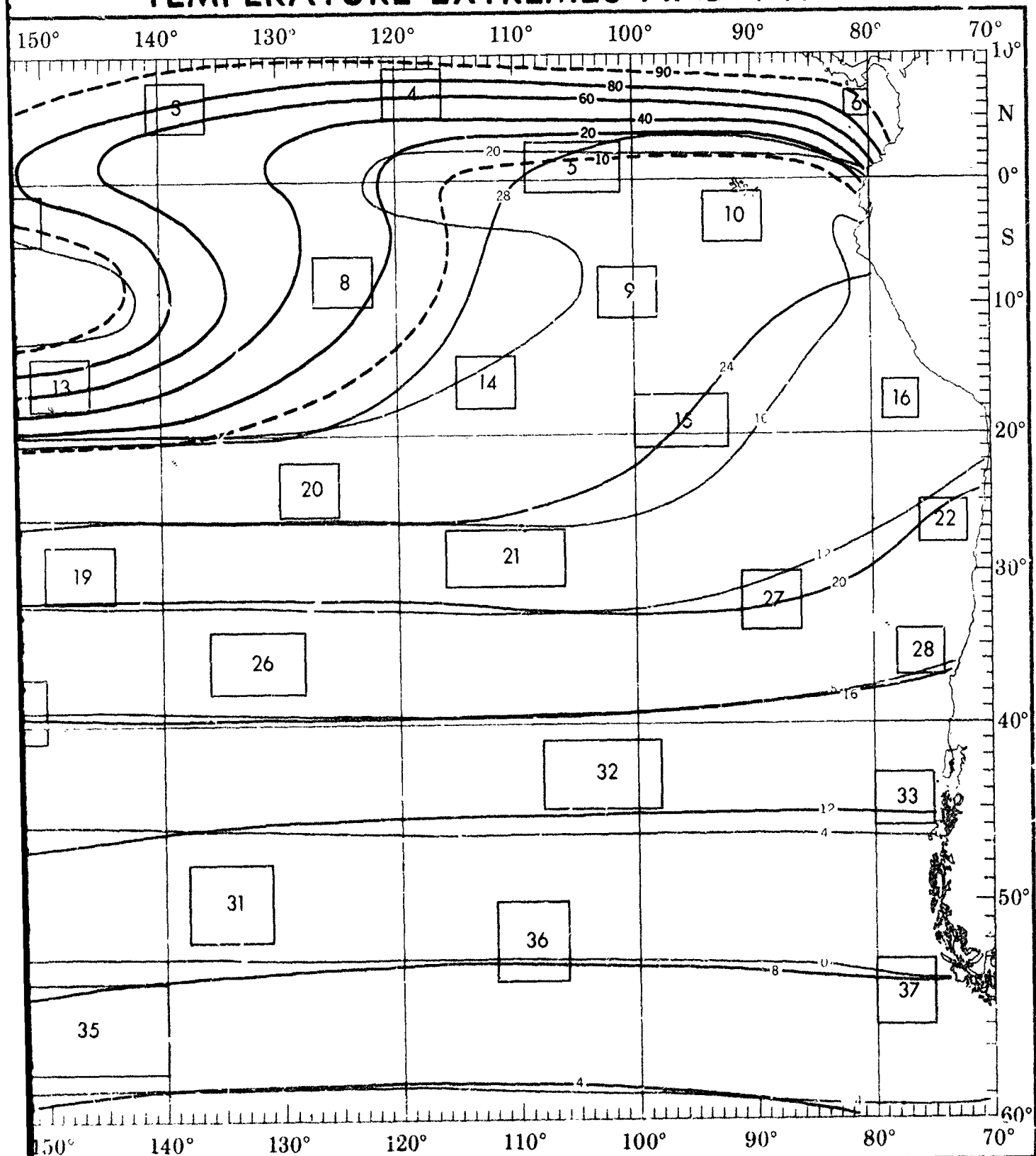
TEMPERATURE EXT



1

1

TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

WIND SPEED (KTS)

Temp (°C)	0-3	4-10	11-21	22-33	34
-4.5	0	0	0	0	0
-3.5	0	0	0	0	0
-2.5	0	0	0	0	0
-1.5	0	0	0	0	0
-0.5	0	0	0	0	0
0.5	0	0	0	0	0
1.5	0	0	0	0	0
2.5	0	0	0	0	0
3.5	0	0	0	0	0
4.5	0	0	0	0	0
5.5	0	0	0	0	0
6.5	0	0	0	0	0
7.5	0	0	0	0	0
8.5	0	0	0	0	0
9.5	0	0	0	0	0
10.5	0	0	0	0	0
11.5	0	0	0	0	0
12.5	0	0	0	0	0
13.5	0	0	0	0	0
14.5	0	0	0	0	0
15.5	0	0	0	0	0
16.5	0	0	0	0	0
17.5	0	0	0	0	0
18.5	0	0	0	0	0
19.5	0	0	0	0	0
20.5	0	0	0	0	0
21.5	0	0	0	0	0
22.5	0	0	0	0	0
23.5	0	0	0	0	0
24.5	0	0	0	0	0
25.5	0	0	0	0	0
26.5	0	0	0	0	0
27.5	0	0	0	0	0
28.5	0	0	0	0	0
29.5	0	0	0	0	0
30.5	0	0	0	0	0
31.5	0	0	0	0	0
32.5	0	0	0	0	0
33.5	0	0	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates <.5% but >0.

Number of observations.

Use of this table in determination of Potential Superstructure Icing is explained in the text.

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	34
28.37	+	0	0	0	0
24.36	+	0	0	0	0
22.33	1	1	1	0	0
20.31	4	9	3	0	+
18.29	14	32	12	+	0
16.27	4	13	4	0	0
14.25	+	1	+	0	0
12.23	+	0	0	0	0
10.21	0	0	0	0	0
8.19	0	0	0	0	0
6.17	0	0	0	0	0

WIND 1

TEMP (°C)	0-3
22.33	0
20.31	1
18.29	5
16.27	5
14.25	1
12.23	+
10.21	0
8.19	0
6.17	0
4.15	0

427

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	34
22.29	0	+	0	0	0
20.31	+	1	+	0	0
18.29	1	8	2	+	+
16.27	7	42	14	+	0
14.25	1	14	7	+	0
12.23	+	2	1	+	0
10.21	0	+	+	0	0
8.19	+	0	0	0	0
6.17	0	0	0	0	0
4.15	0	0	0	0	0
2.13	0	0	0	0	0

WIND 6

TEMP (°C)	0-3
22.29	0
20.31	0
18.29	1
16.27	2
14.25	1
12.23	0
10.21	0
8.19	0
6.17	0
4.15	0
2.13	0

1317

BLACK LINE - Percent frequency of T-H Index $\geq 24^{\circ}\text{C}$ (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 11						WIND SPEED (KTS) 12						WIND SPEED (KTS) 13						WIND SPEED (KTS) 14						WIND SPEED (KTS) 15						WIND 5	
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3
24.26	+	+	0	0	0	28.29	+	+	+	0	0	20.23	+	0	0	0	0	20.23	0	+	0	0	0	24.26	0	1	1	+	0	24.26	0
22.24	1	9	1	0	0	26.27	1	2	3	+	0	20.27	0	+	1	0	0	20.27	+	2	1	0	0	22.24	2	5	7	1	0	22.24	0
20.21	1	3	2	+	+	24.26	4	13	11	3	0	24.26	1	3	3	+	0	24.26	+	8	0	1	0	20.21	2	9	17	6	0	20.21	0
18.19	4	18	18	7	0	22.27	2	23	23	3	0	20.27	2	24	23	2	0	20.27	1	18	48	4	0	18.19	2	8	22	8	+	18.19	+
16.17	1	17	21	7	+	24.26	+	2	2	1	0	24.26	3	13	17	4	0	24.26	+	4	8	2	0	16.17	0	1	4	1	1	16.17	2
14.15	+	2	2	1	+	22.29	0	+	+	0	0	22.29	+	2	2	1	0	18.19	0	0	+	+	0	14.15	0	0	0	+	+	14.15	0
12.13	0	0	0	0	0	20.21	0	0	+	0	0	20.21	0	0	+	0	0	16.17	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0
10.11	0	0	0	0	0	18.19	0	0	0	0	0	18.19	0	0	0	0	0	14.15	0	0	0	0	0	10.11	0	0	0	0	0	10.11	0
8.09	0	0	0	0	0	16.17	0	0	0	0	0	16.17	0	0	0	0	0	12.13	0	0	0	0	0	8.09	0	0	0	0	0	8.09	0
6.07	0	0	0	0	0	14.15	0	0	0	0	0	14.15	0	0	0	0	0	10.11	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0
4.05	0	0	0	0	0	12.13	0	0	0	0	0	12.13	0	0	0	0	0	8.09	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0
353						682						591						1174						366							

WIND SPEED (KTS) 20						WIND SPEED (KTS) 21						WIND SPEED (KTS) 22						WIND SPEED (KTS) 23						WIND SPEED (KTS) 24						WIND 5P	
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3
24.26	0	+	+	0	0	24.27	0	0	0	+	0	24.26	0	+	0	0	0	24.26	0	+	0	0	0	24.26	0	+	0	0	0	24.26	0
22.24	+	1	1	0	0	24.26	0	0	0	0	0	22.24	0	+	+	0	0	24.26	0	+	+	0	0	24.26	0	+	+	0	0	24.26	0
20.21	1	4	4	+	0	22.29	1	1	2	1	0	20.21	+	3	3	1	+	20.21	+	3	3	1	+	20.21	+	3	3	1	+	20.21	1
18.19	3	18	20	2	+	20.21	1	9	10	3	0	18.19	2	10	18	5	+	18.19	2	10	18	5	+	18.19	2	10	18	5	+	18.19	2
16.17	2	11	18	4	+	18.19	2	20	21	2	0	16.17	2	7	7	1	+	16.17	2	7	7	1	+	16.17	2	7	7	1	+	16.17	2
14.15	+	4	6	1	+	16.17	1	8	8	4	0	14.15	1	4	8	1	+	14.15	1	4	8	1	+	14.15	1	4	8	1	+	14.15	1
12.13	0	0	0	+	0	14.15	1	9	4	0	0	12.13	0	+	1	1	+	12.13	0	+	1	1	+	12.13	0	+	1	1	+	12.13	0
10.11	0	0	0	0	0	12.13	0	+	+	0	0	10.11	0	0	+	+	0	10.11	0	0	+	+	0	10.11	0	0	+	+	0	10.11	0
8.09	0	0	0	0	0	10.11	0	0	0	0	0	8.09	0	0	0	0	0	8.09	0	0	0	0	0	8.09	0	0	0	0	0	8.09	0
6.07	0	0	0	0	0	8.09	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0
4.05	0	0	0	0	0	6.07	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0
1896						368						838						1662						744							

WIND SPEED (KTS) 29						WIND SPEED (KTS) 30						WIND SPEED (KTS) 31						WIND SPEED (KTS) 32						WIND SPEED (KTS) 33						WIND 5P	
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3
18.19	0	+	0	0	0	12.13	0	0	+	1	0	18.19	0	+	1	0	0	14.15	0	1	1	0	0	18.19	0	+	0	0	0	18.19	0
16.17	+	1	1	+	0	10.11	0	2	6	4	+	16.17	+	3	8	0	2	16.17	0	+	5	7	1	16.17	+	1	+	+	+	16.17	2
14.15	+	0	0	0	1	8.09	1	8	24	18	3	14.15	+	10	24	18	3	14.15	+	2	8	8	7	14.15	+	1	1	+	+	14.15	1
12.13	2	18	21	0	2	6.07	1	9	18	8	+	12.13	2	14	18	8	1	12.13	2	14	18	8	1	12.13	2	14	18	8	1	12.13	2
10.11	1	7	8	3	1	4.05	0	2	2	1	1	10.11	1	4	8	1	4	10.11	1	4	8	1	4	10.11	1	4	8	1	4	10.11	1
8.09	+	2	3	2	1	2.01	0	0	+	0	0	8.09	0	0	1	4	1	8.09	0	0	0	0	0	8.09	0	0	0	0	0	8.09	0
6.07	+	+	+	+	+	0.01	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0	0	0	0	0	6.07	0
4.05	0	0	0	0	0	-0.01	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0	0	0	0	0	4.05	0
2.01	0	0	0	0	0	-0.01	0	0	0	0	0	2.01	0	0	0	0	0	2.01	0	0	0	0	0	2.01	0	0	0	0	0	2.01	0
0.01	0	0	0	0	0	-0.01	0	0	0	0	0	0.01	0	0	0	0	0														

R TEMPERATURE

SEPTEMBER

ature (°C) and wind speed

wind speed of 22-33 kts.)

is explained in the text

ed due to heat)

less than the given value)

on the given value)

13

WIND SPEED (KTS) 14									
TEMP (°C)	0-3	4-10	11-21	22-33	34	TEMP (°C)	0-3	4-10	11-21
20.00	0	0	0	0	0	20.00	0	0	0
20.01	0	0	0	0	0	20.01	0	0	0
20.02	0	0	0	0	0	20.02	0	0	0
20.03	0	0	0	0	0	20.03	0	0	0
20.04	0	0	0	0	0	20.04	0	0	0
20.05	0	0	0	0	0	20.05	0	0	0
20.06	0	0	0	0	0	20.06	0	0	0
20.07	0	0	0	0	0	20.07	0	0	0
20.08	0	0	0	0	0	20.08	0	0	0
20.09	0	0	0	0	0	20.09	0	0	0
20.10	0	0	0	0	0	20.10	0	0	0
20.11	0	0	0	0	0	20.11	0	0	0
20.12	0	0	0	0	0	20.12	0	0	0
20.13	0	0	0	0	0	20.13	0	0	0
20.14	0	0	0	0	0	20.14	0	0	0
20.15	0	0	0	0	0	20.15	0	0	0
20.16	0	0	0	0	0	20.16	0	0	0
20.17	0	0	0	0	0	20.17	0	0	0
20.18	0	0	0	0	0	20.18	0	0	0
20.19	0	0	0	0	0	20.19	0	0	0
20.20	0	0	0	0	0	20.20	0	0	0
20.21	0	0	0	0	0	20.21	0	0	0
20.22	0	0	0	0	0	20.22	0	0	0
20.23	0	0	0	0	0	20.23	0	0	0
20.24	0	0	0	0	0	20.24	0	0	0
20.25	0	0	0	0	0	20.25	0	0	0
20.26	0	0	0	0	0	20.26	0	0	0
20.27	0	0	0	0	0	20.27	0	0	0
20.28	0	0	0	0	0	20.28	0	0	0
20.29	0	0	0	0	0	20.29	0	0	0
20.30	0	0	0	0	0	20.30	0	0	0
20.31	0	0	0	0	0	20.31	0	0	0
20.32	0	0	0	0	0	20.32	0	0	0
20.33	0	0	0	0	0	20.33	0	0	0
20.34	0	0	0	0	0	20.34	0	0	0
20.35	0	0	0	0	0	20.35	0	0	0
20.36	0	0	0	0	0	20.36	0	0	0
20.37	0	0	0	0	0	20.37	0	0	0
20.38	0	0	0	0	0	20.38	0	0	0
20.39	0	0	0	0	0	20.39	0	0	0
20.40	0	0	0	0	0	20.40	0	0	0
20.41	0	0	0	0	0	20.41	0	0	0
20.42	0	0	0	0	0	20.42	0	0	0
20.43	0	0	0	0	0	20.43	0	0	0
20.44	0	0	0	0	0	20.44	0	0	0
20.45	0	0	0	0	0	20.45	0	0	0
20.46	0	0	0	0	0	20.46	0	0	0
20.47	0	0	0	0	0	20.47	0	0	0
20.48	0	0	0	0	0	20.48	0	0	0
20.49	0	0	0	0	0	20.49	0	0	0
20.50	0	0	0	0	0	20.50	0	0	0
20.51	0	0	0	0	0	20.51	0	0	0
20.52	0	0	0	0	0	20.52	0	0	0
20.53	0	0	0	0	0	20.53	0	0	0
20.54	0	0	0	0	0	20.54	0	0	0
20.55	0	0	0	0	0	20.55	0	0	0
20.56	0	0	0	0	0	20.56	0	0	0
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20.58	0	0	0	0	0	20.58	0	0	0
20.59	0	0	0	0	0	20.59	0	0	0
20.60	0	0	0	0	0	20.60	0	0	0
20.61	0	0	0	0	0	20.61	0	0	0
20.62	0	0	0	0	0	20.62	0	0	0
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20.65	0	0	0	0	0	20.65	0	0	0
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20.67	0	0	0	0	0	20.67	0	0	0
20.68	0	0	0	0	0	20.68	0	0	0
20.69	0	0	0	0	0	20.69	0	0	0
20.70	0	0	0	0	0	20.70	0	0	0
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20.79	0	0	0	0	0	20.79	0	0	0
20.80	0	0	0	0	0	20.80	0	0	0
20.81	0	0	0	0	0	20.81	0	0	0
20.82	0	0	0	0	0	20.82	0	0	0
20.83	0	0	0	0	0	20.83	0	0	0
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20.85	0	0	0	0	0	20.85	0	0	0
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20.87	0	0	0	0	0	20.87	0	0	0
20.88	0	0	0	0	0	20.88	0	0	0
20.89	0	0	0	0	0	20.89	0	0	0
20.90	0	0	0	0	0	20.90	0	0	0
20.91	0	0	0	0	0	20.91	0	0	0
20.92	0	0	0	0	0	20.92	0	0	0
20.93	0	0	0	0	0	20.93	0	0	0
20.94	0	0	0	0	0	20.94	0	0	0
20.95	0	0	0	0	0	20.95	0	0	0
20.96	0	0	0	0	0	20.96	0	0	0
20.97	0	0	0	0	0	20.97	0	0	0
20.98	0	0	0	0	0	20.98	0	0	0
20.99	0	0	0	0	0	20.99	0	0	0
21.00	0	0	0	0	0	21.00	0	0	0

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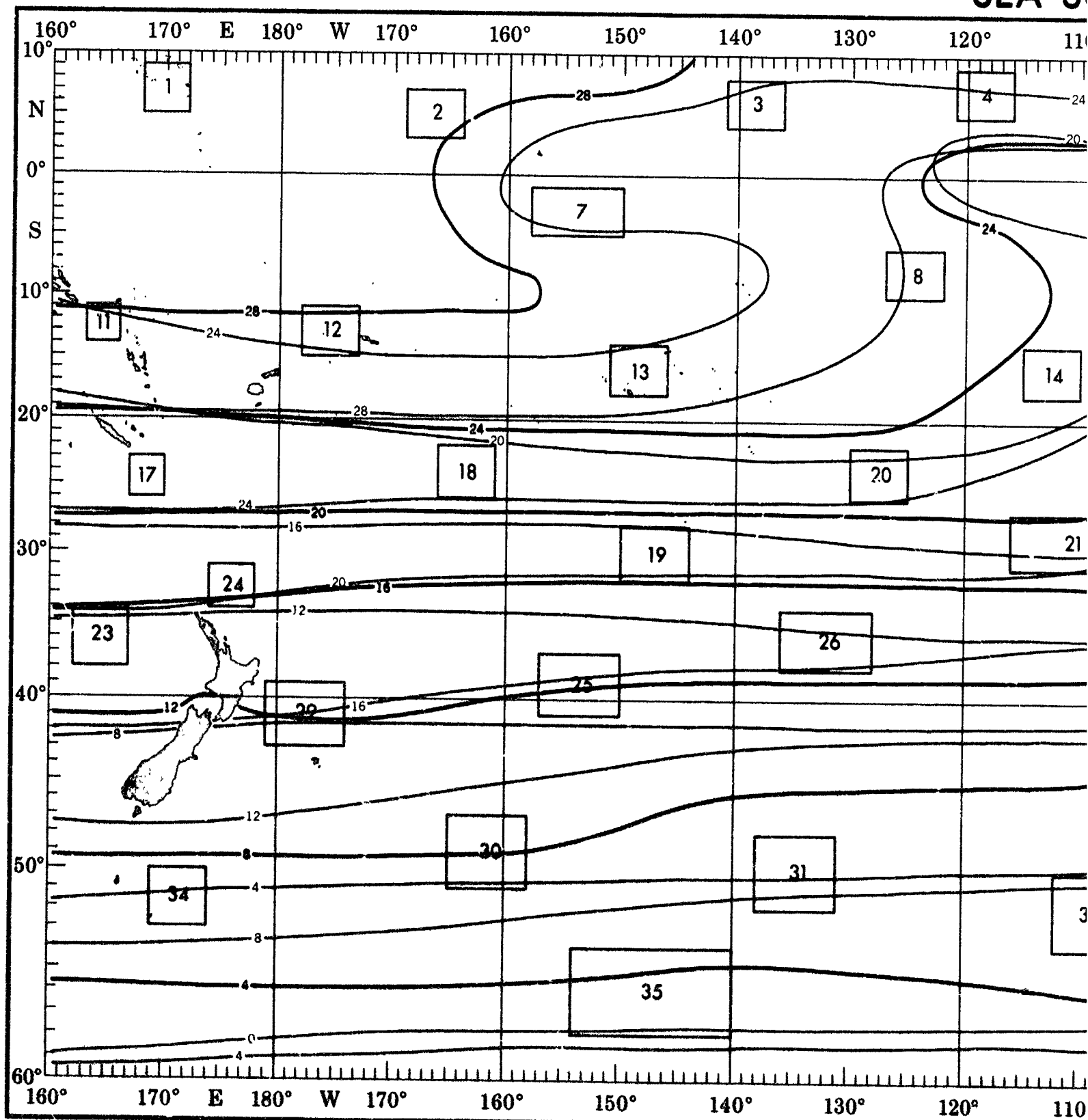
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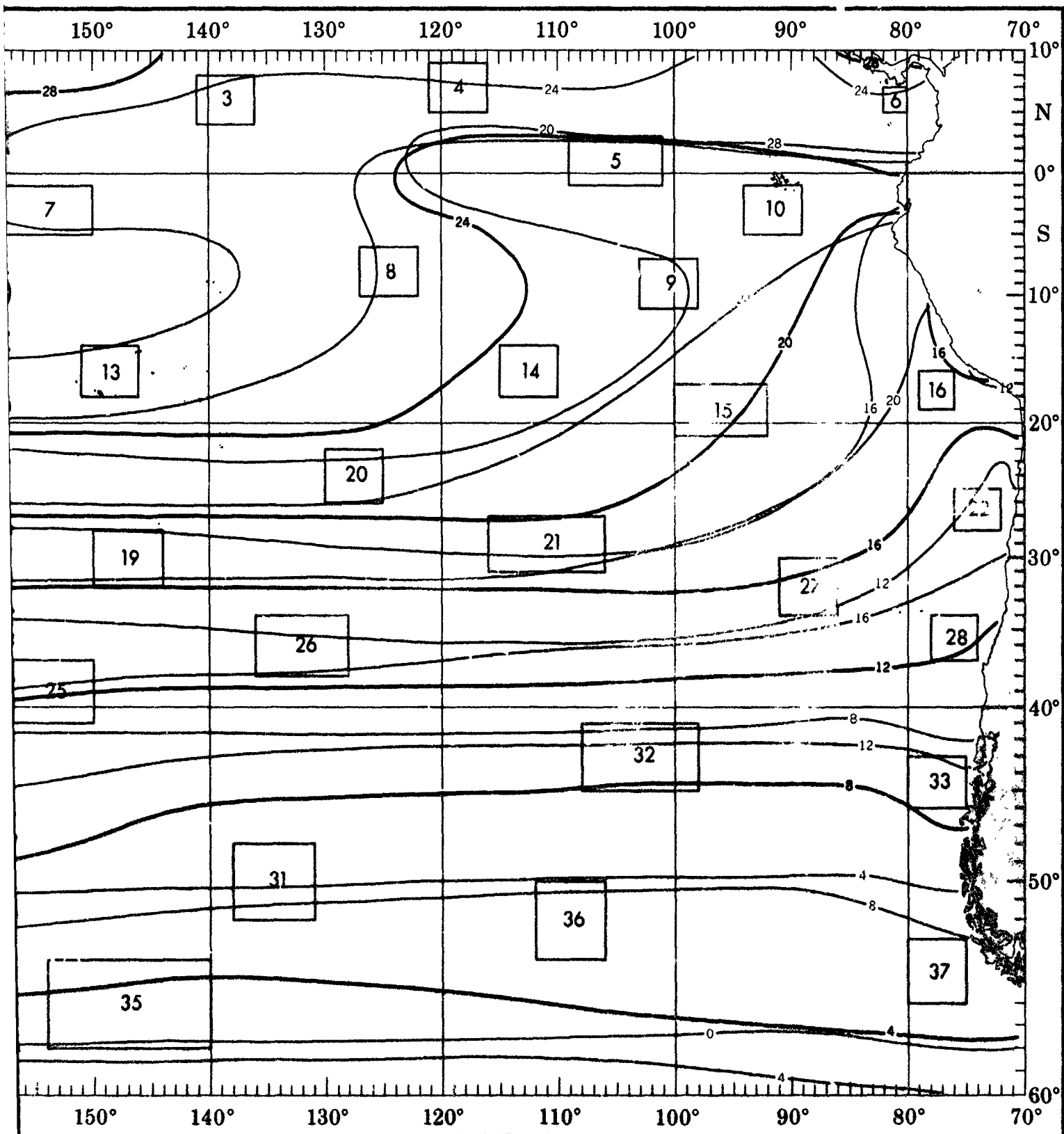
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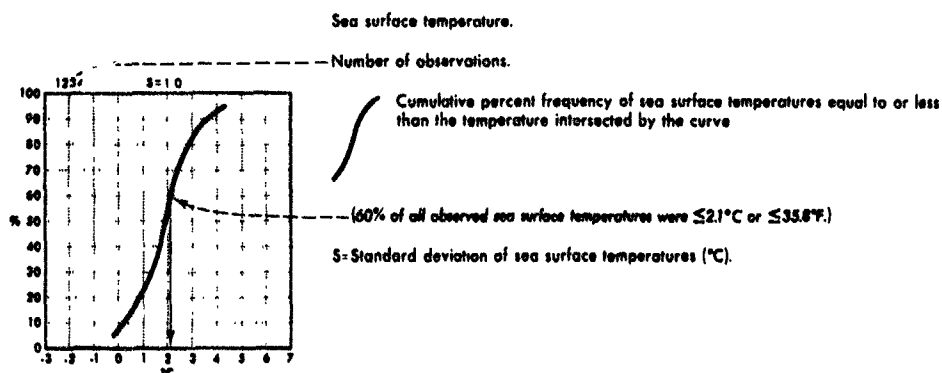
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SEA SURFACE TEMPERATURE



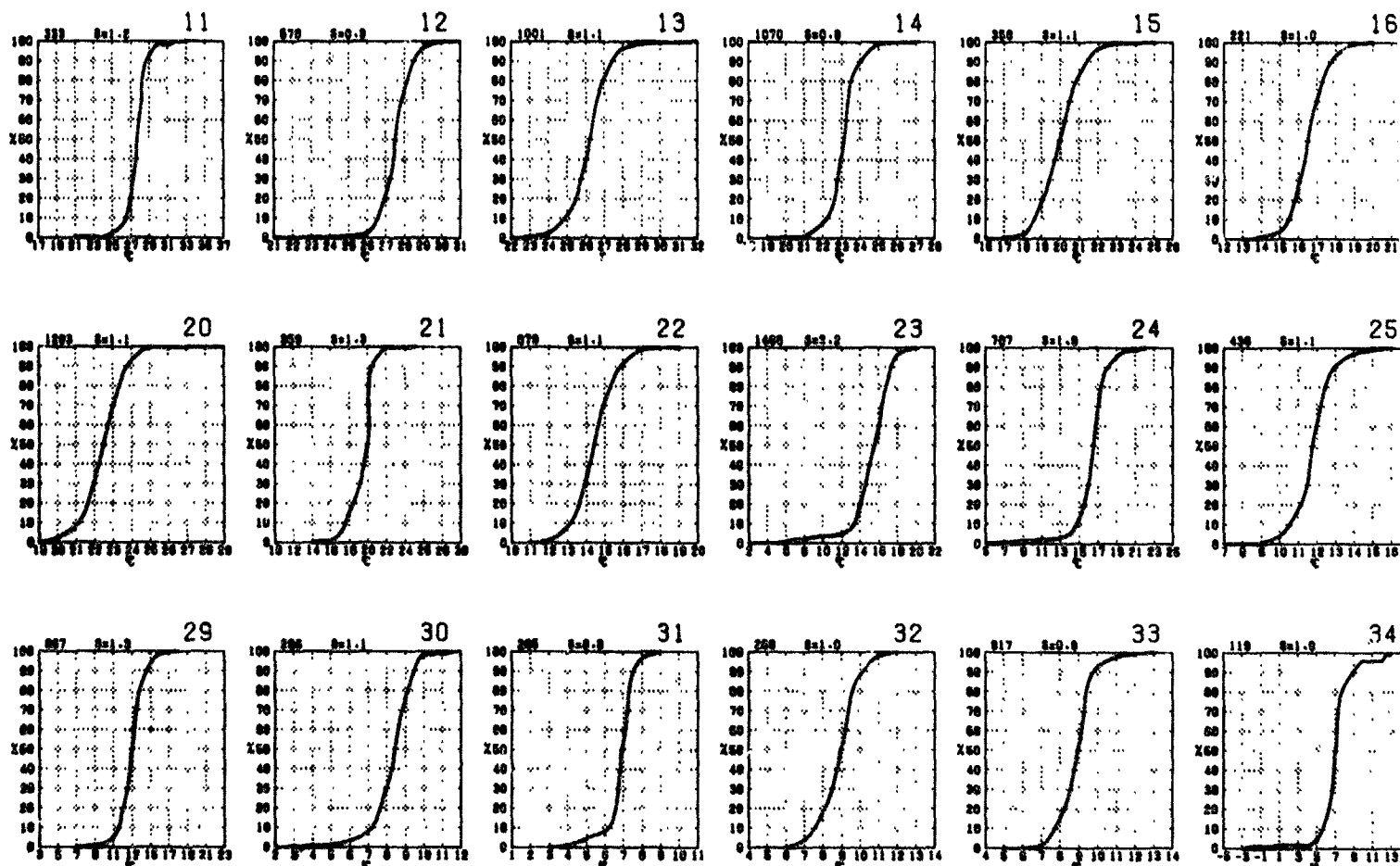
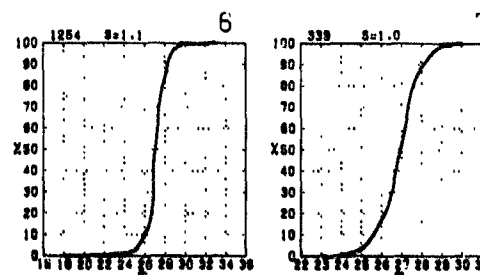
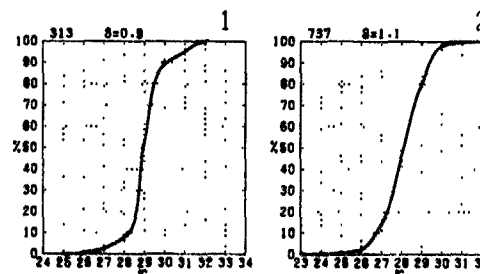
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted to

ATURE

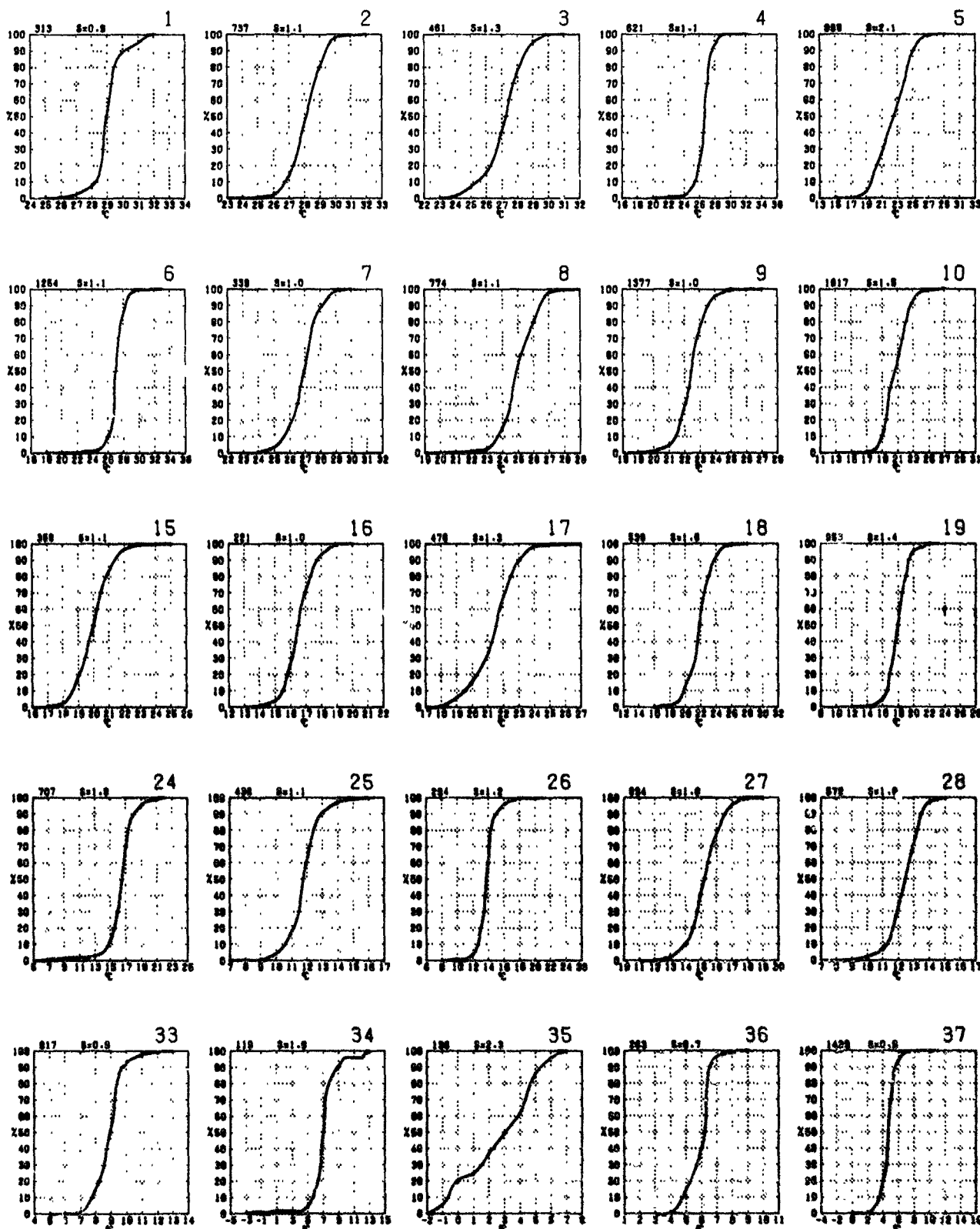
SEPTEMBER

temperatures equal to or less

($\leq 35.8^\circ\text{F}$)

or less than the given

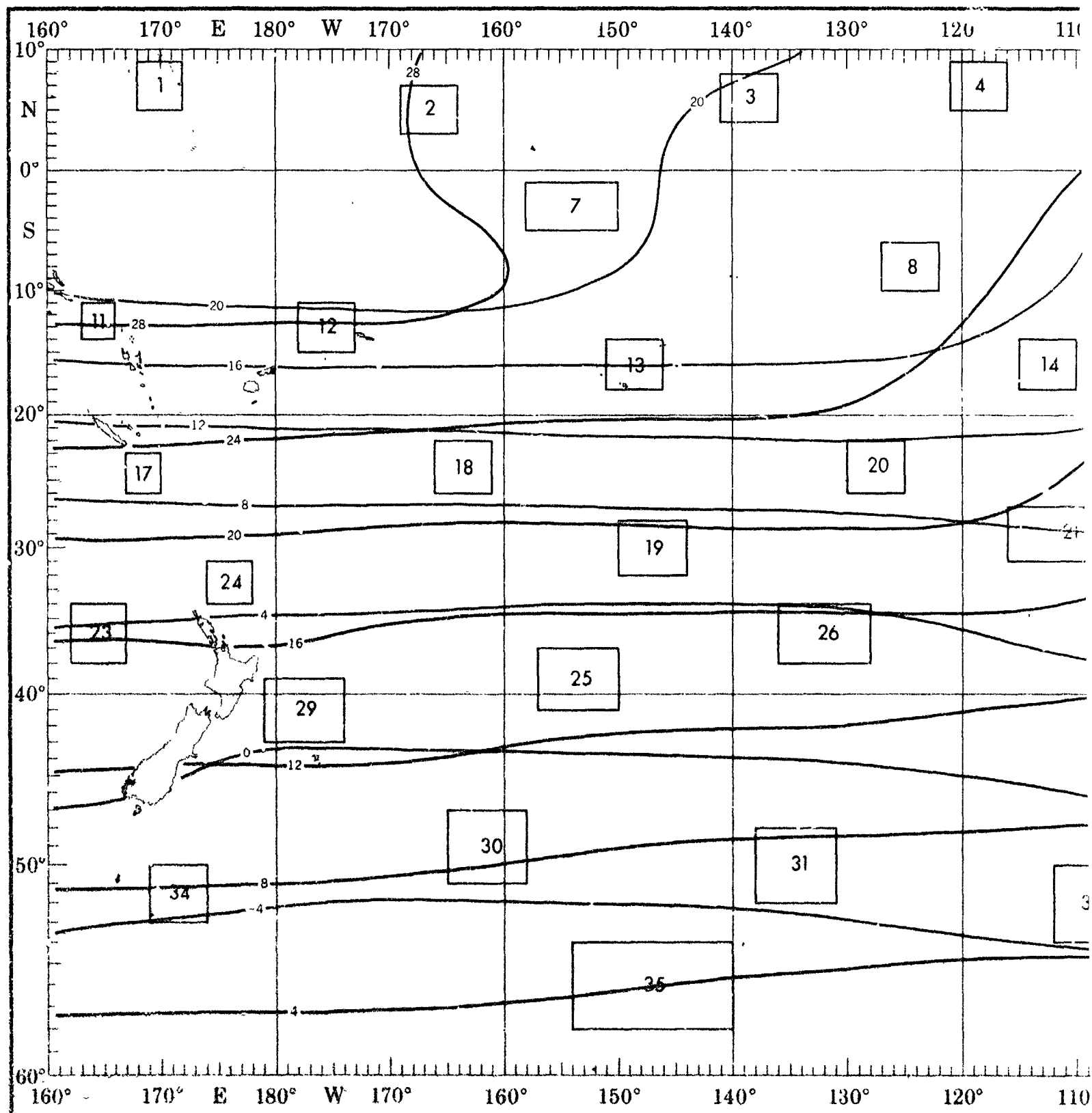
than the given value)



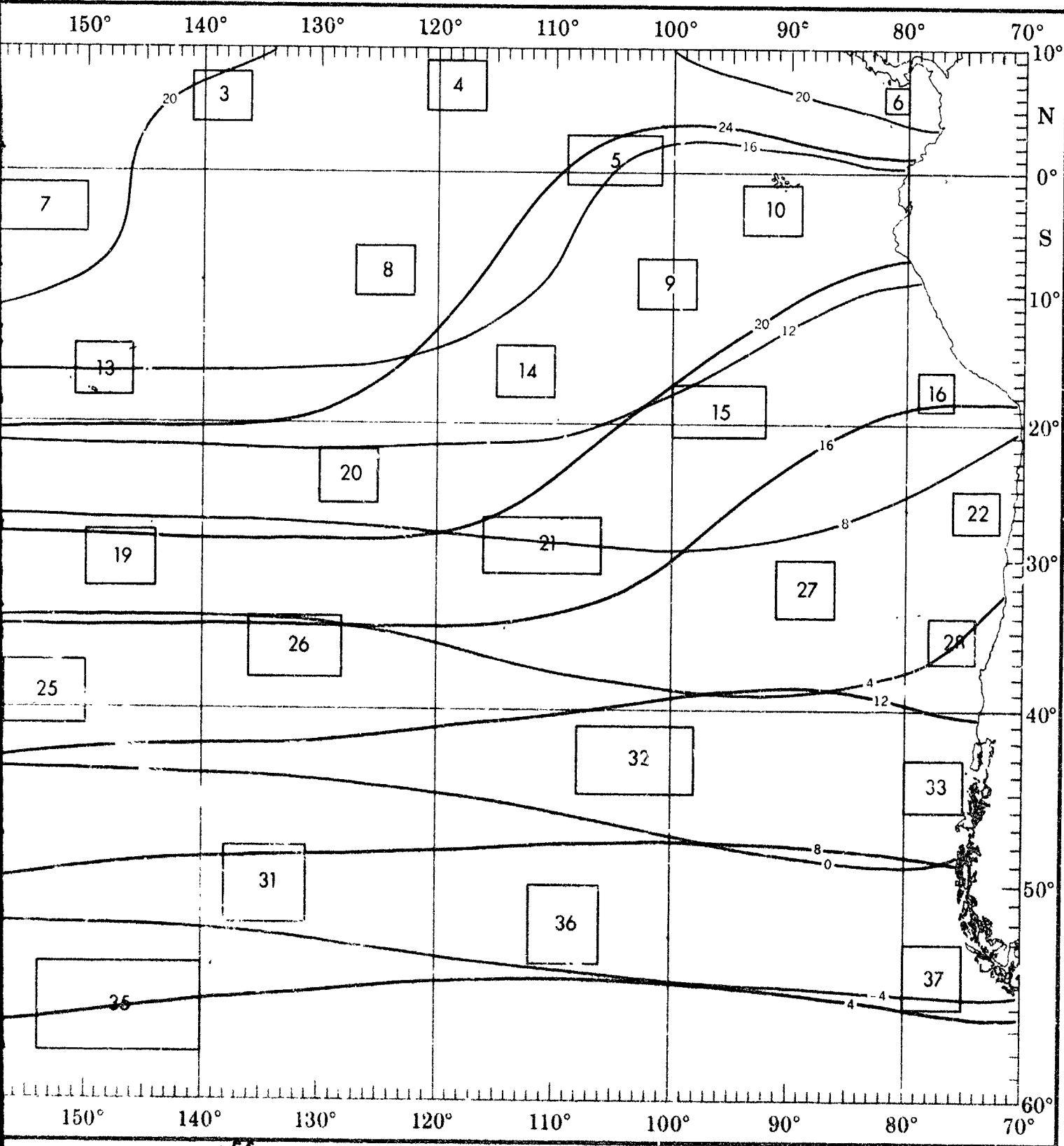
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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SEPTEMBER



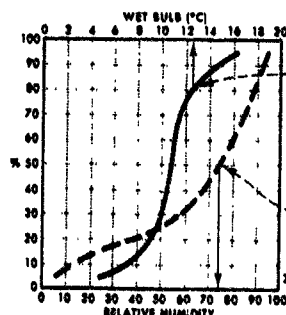
HUMIDITY



WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).



Wet bulb (°C)

(80% of all observed wet-bulb temperatures were $\leq 12.5^{\circ}\text{C}$ or 54.5°F .)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale)

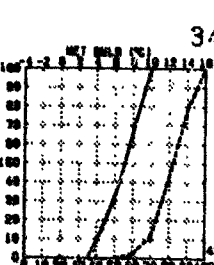
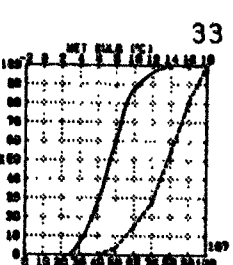
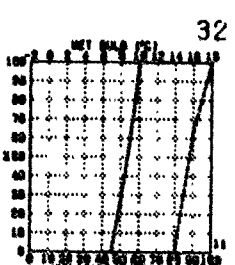
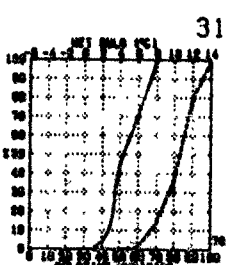
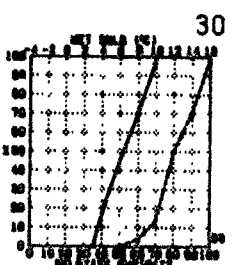
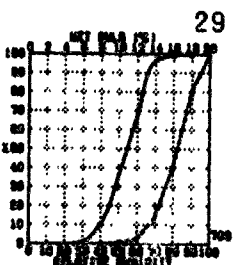
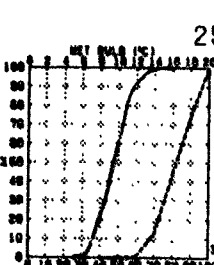
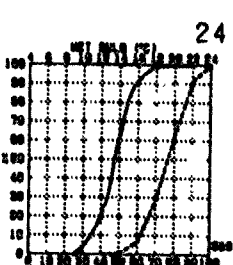
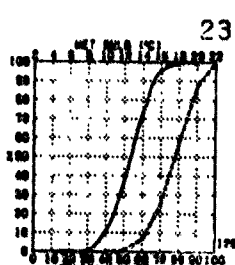
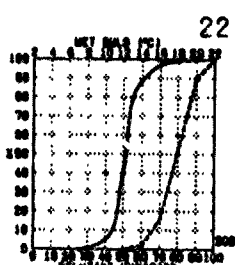
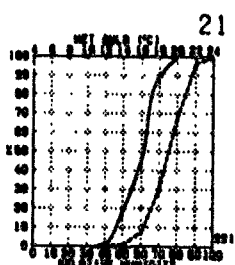
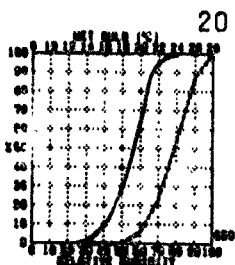
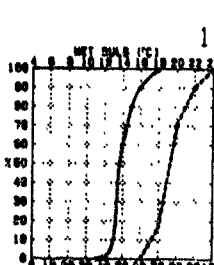
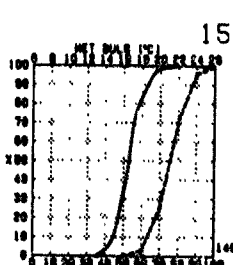
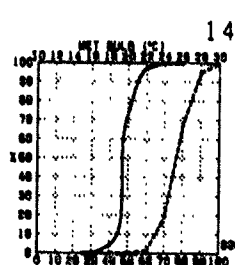
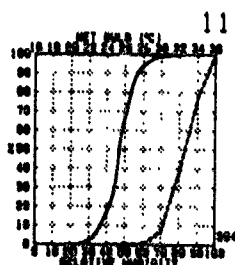
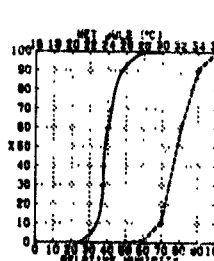
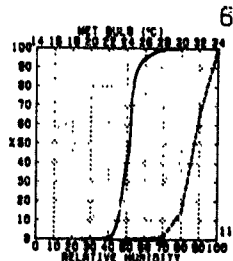
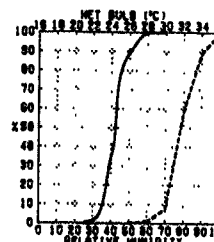
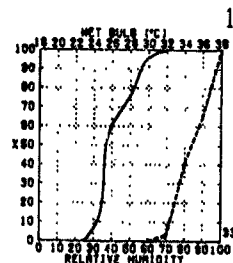
Relative humidity (%).

(50% of all observed relative humidities were $\leq 74\%$.)

Number of observations

BLUE LINE - Minimum (1%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature ($^{\circ}\text{C}$) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted.

VE HUMIDITY

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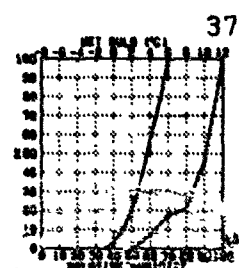
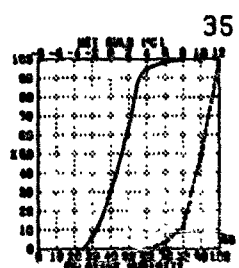
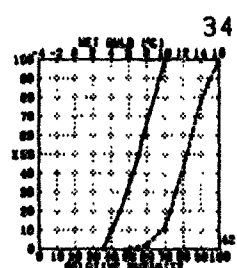
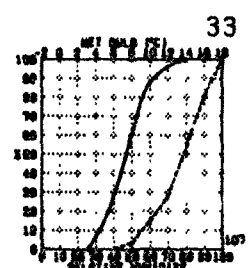
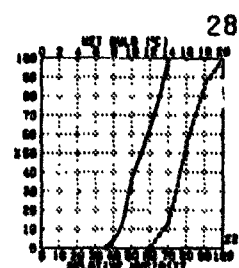
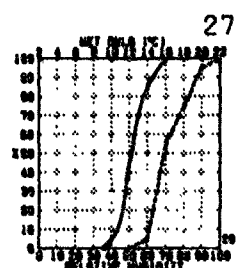
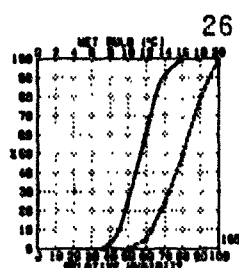
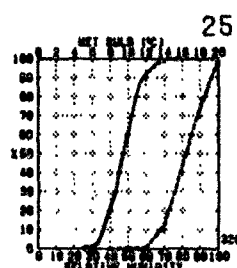
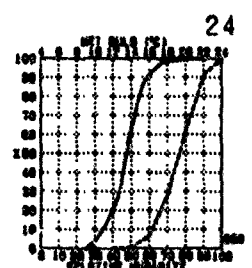
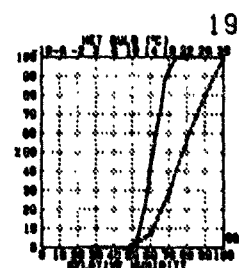
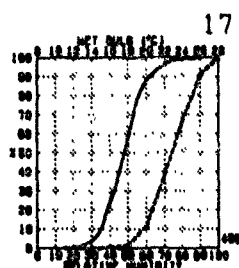
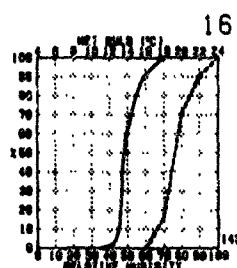
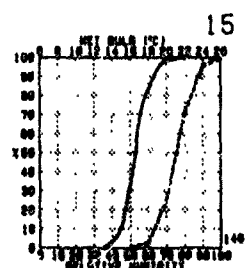
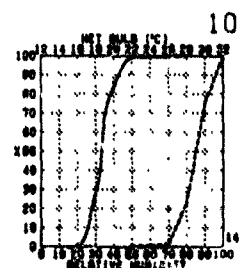
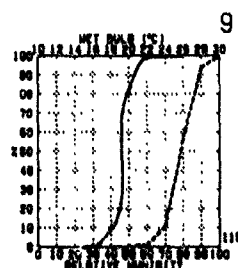
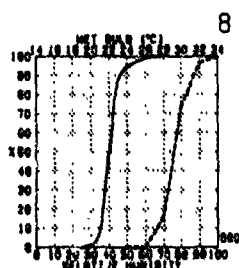
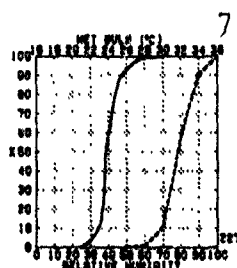
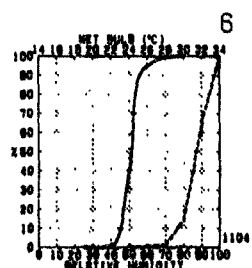
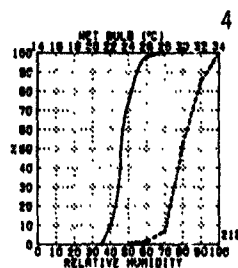
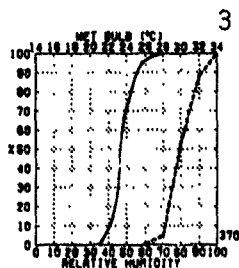
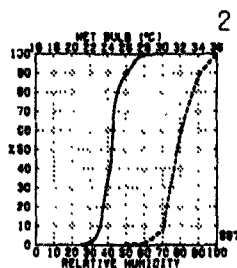
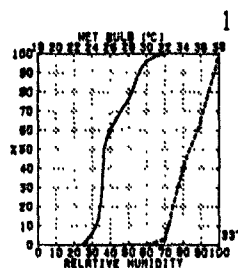
al to or less than the

(S.F.)

or less than the humidity

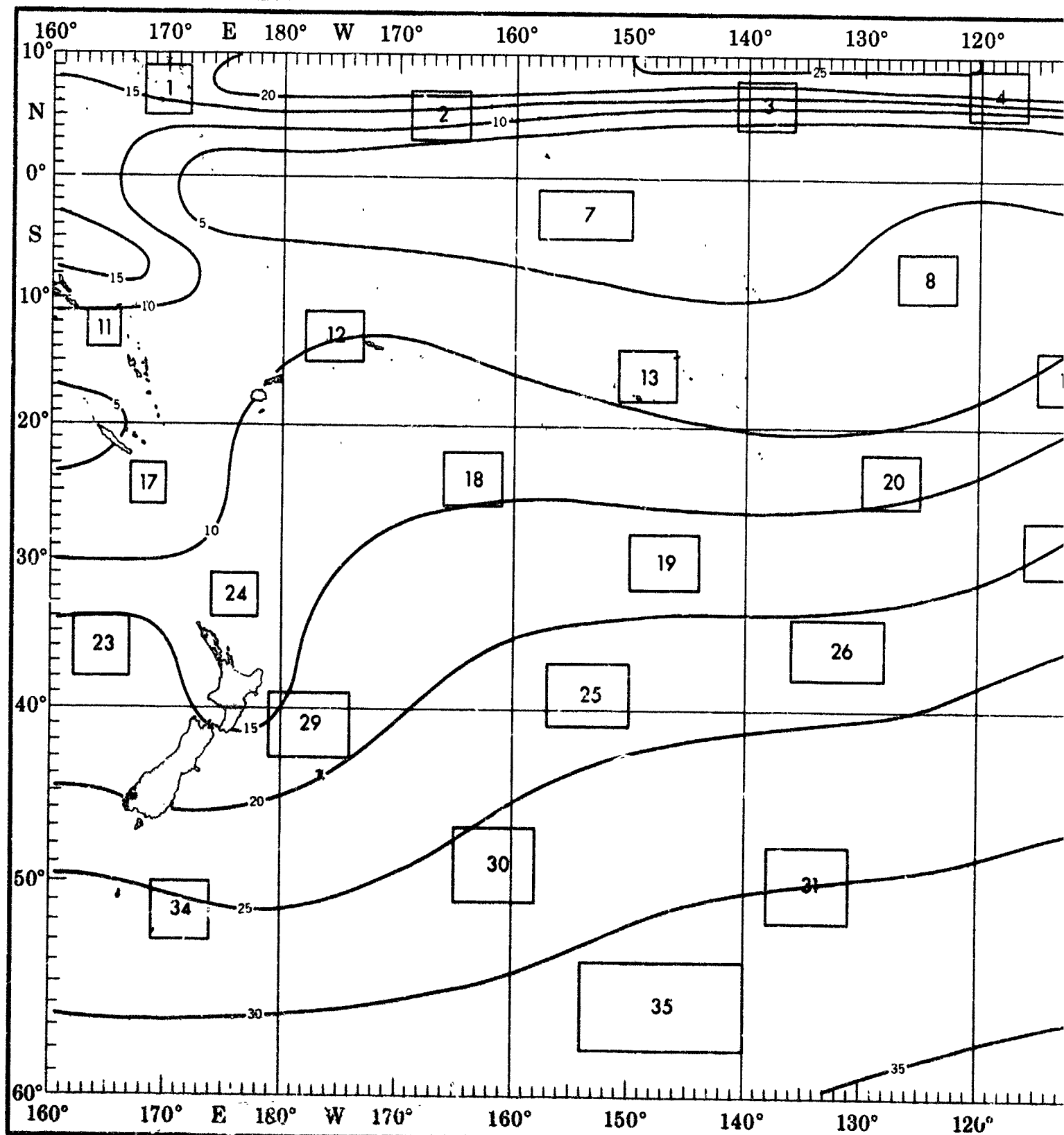
or less than the given

than the given value)

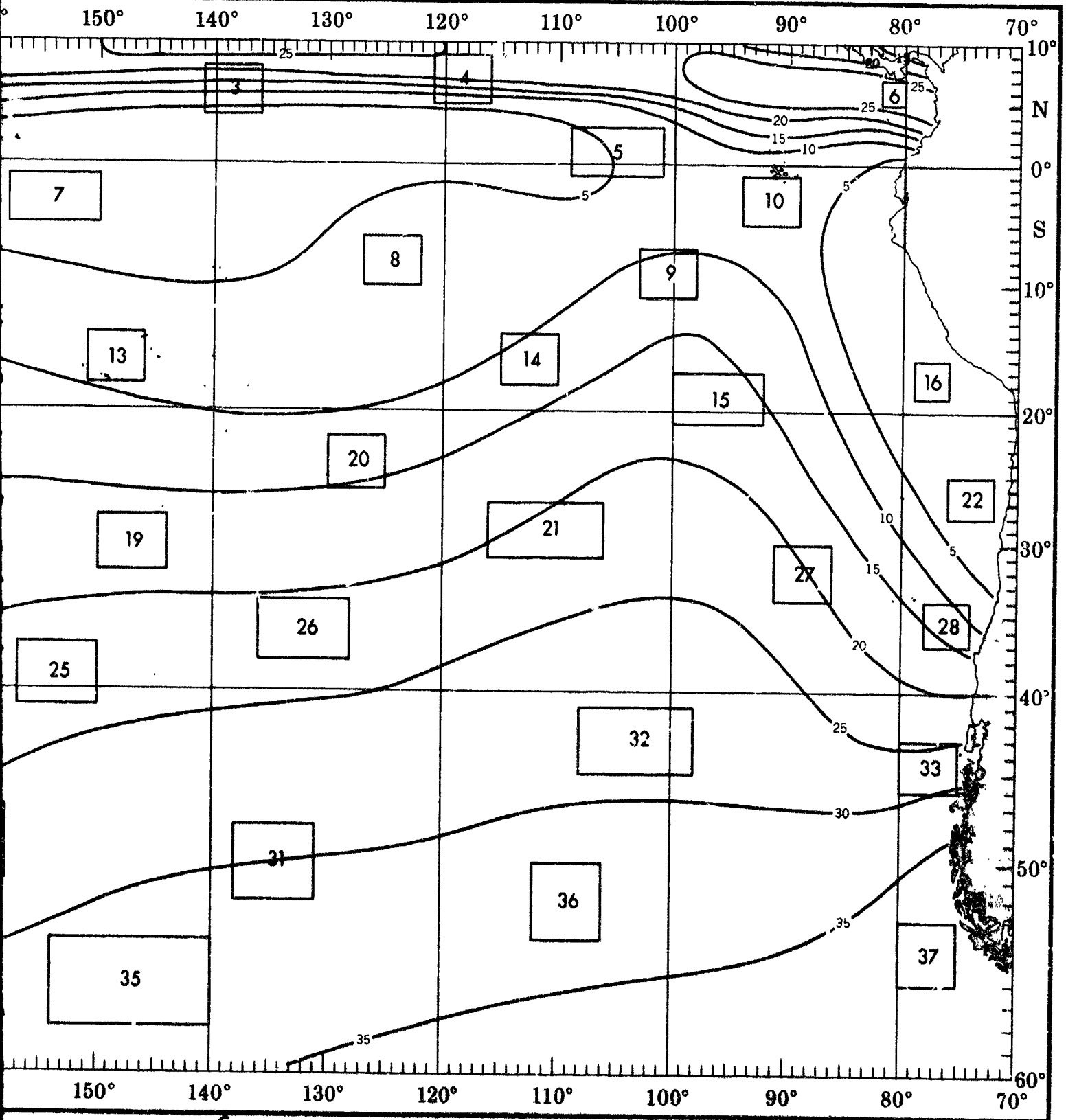


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

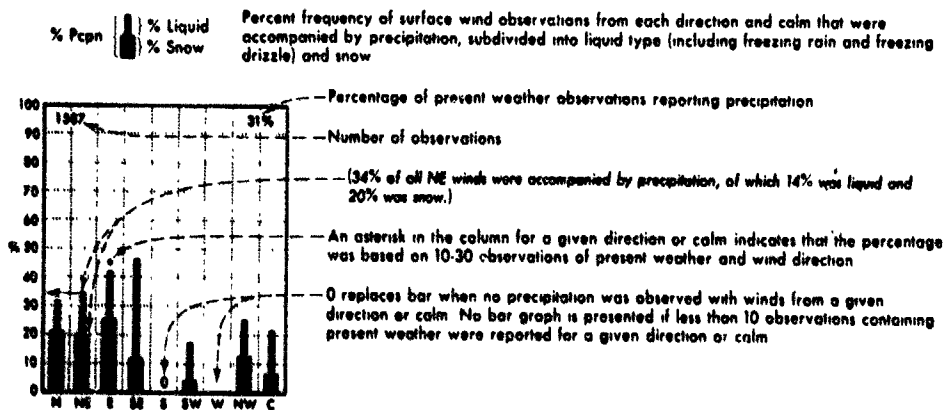
SEPTEMBER



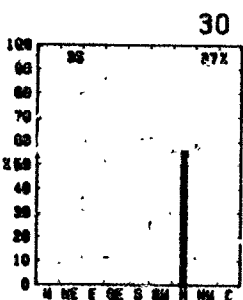
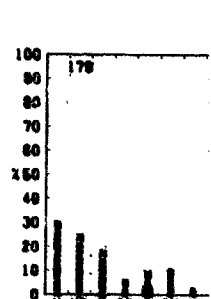
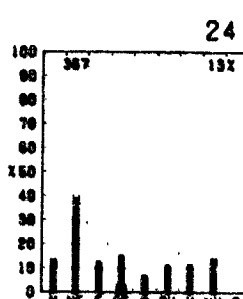
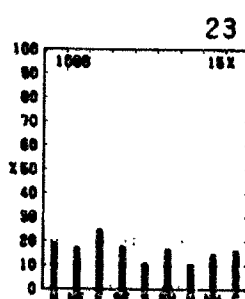
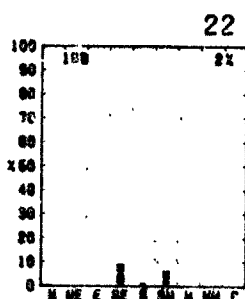
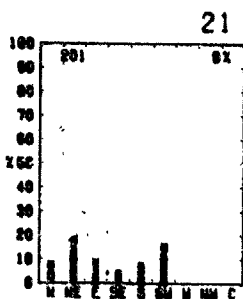
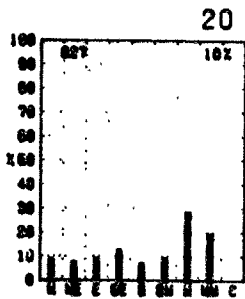
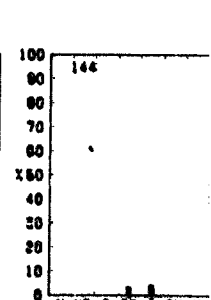
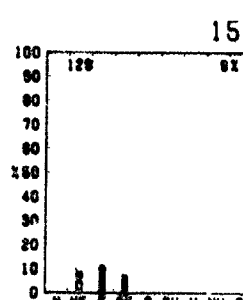
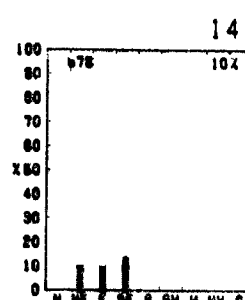
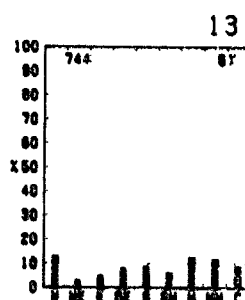
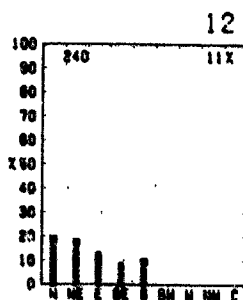
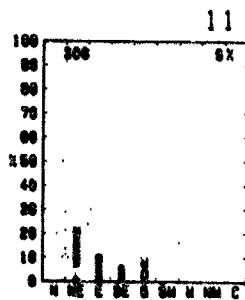
PRECIPITATION



PRECIPITATION

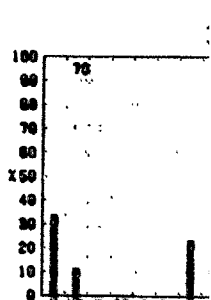
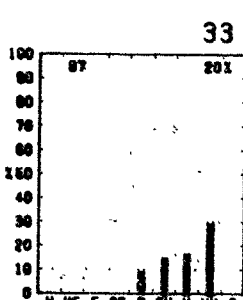


RED LINE - Percent frequency of observations reporting precipitation



INSUFFICIENT DATA

INSUFFICIENT DATA



Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

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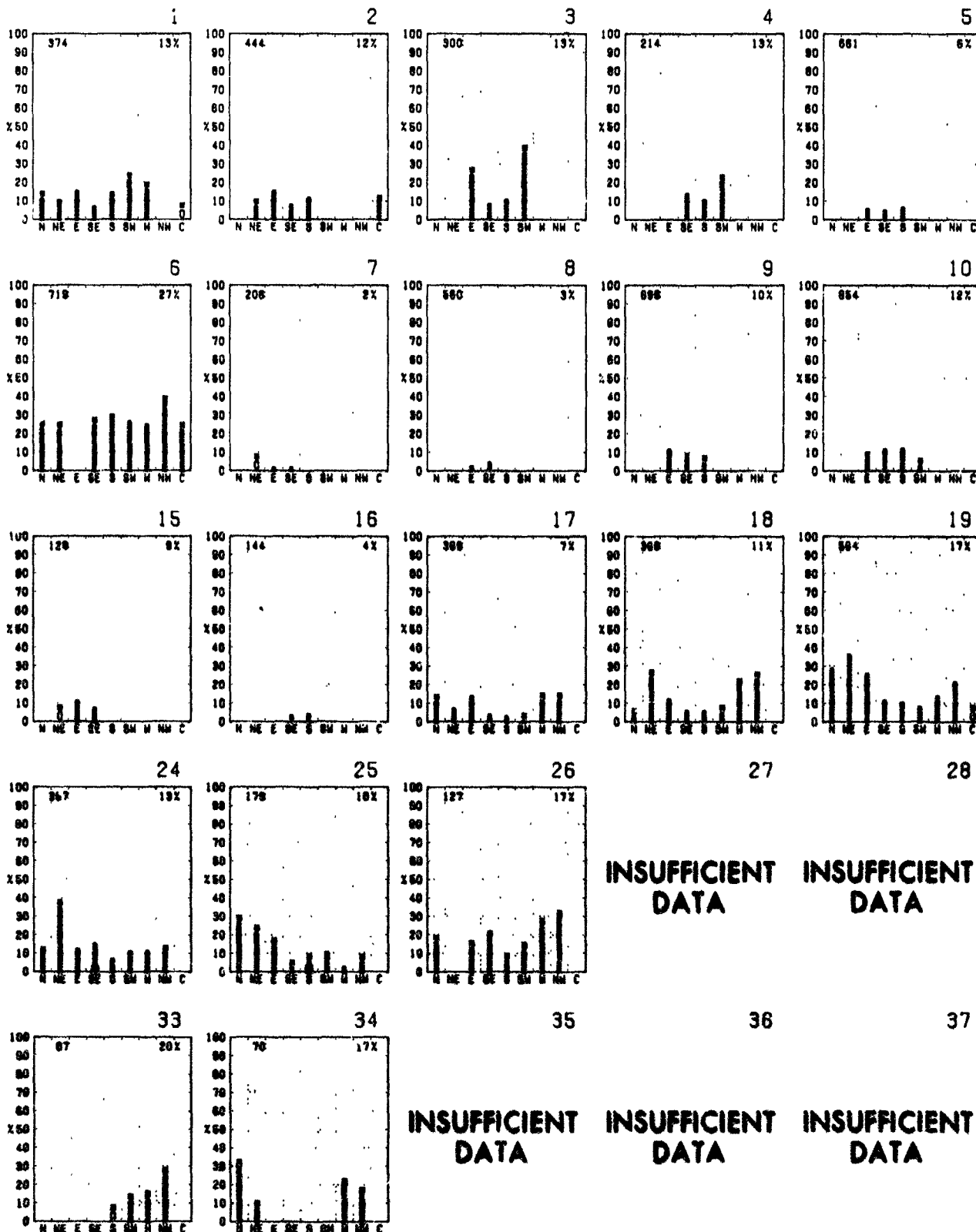
and calm that were
freezing rain and freezing

Station

with 14% was liquid and

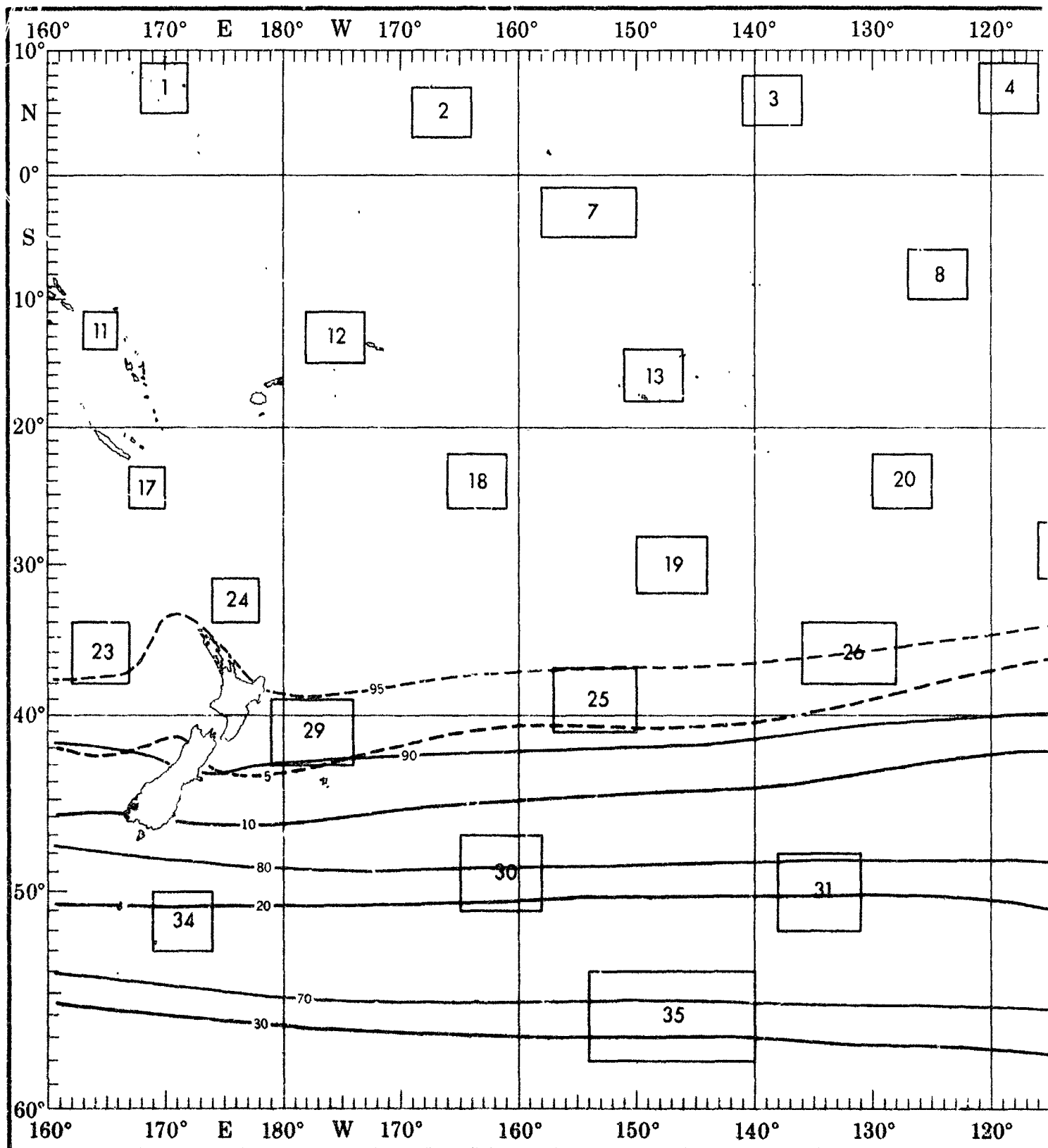
states that the percentage
and direction

ids from a given
observations containing

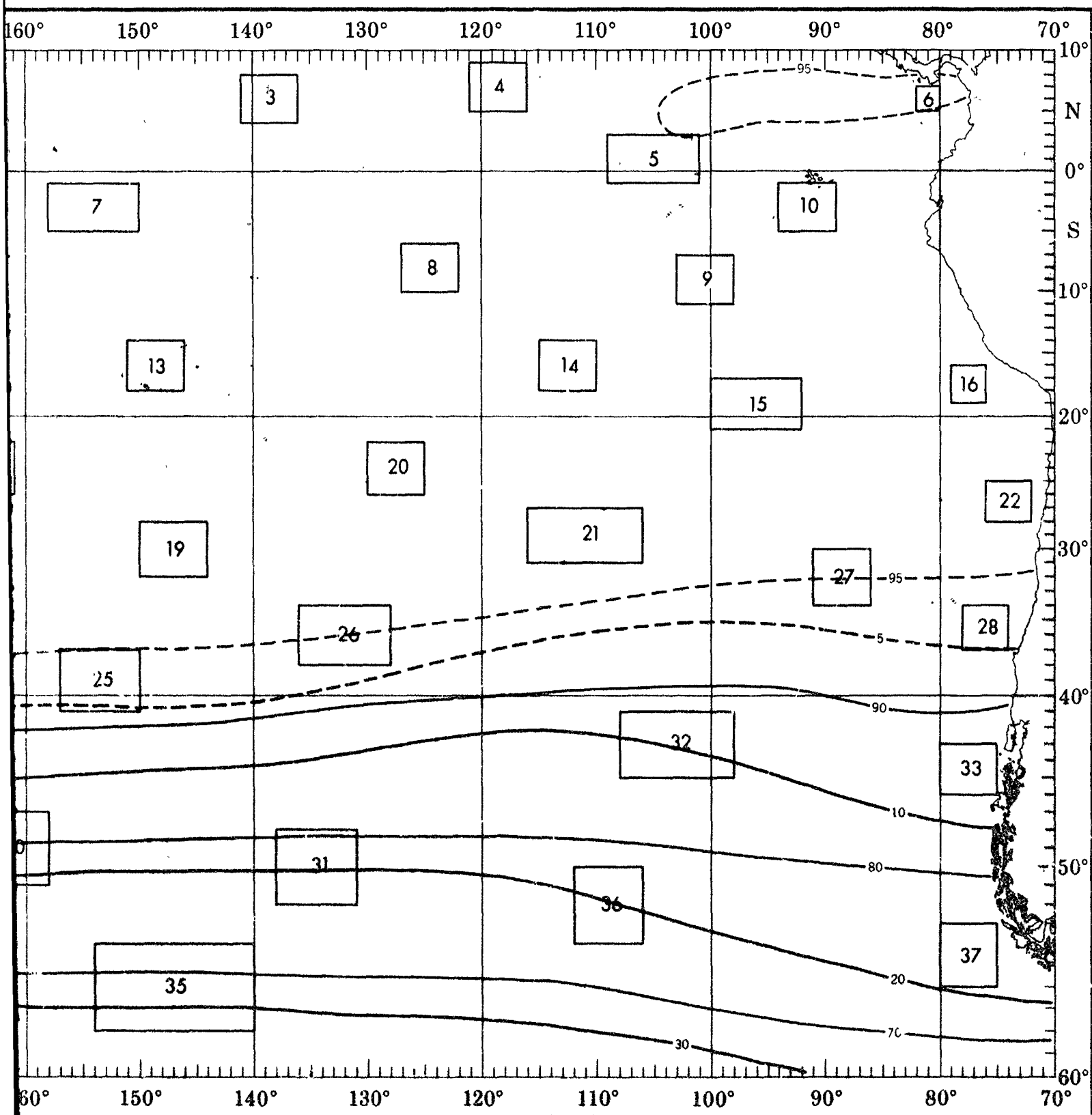


objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

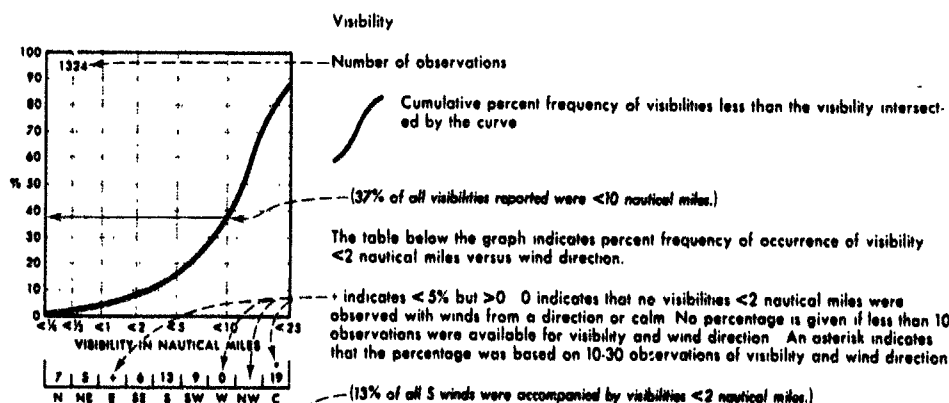
SEPTEMBER



VISIBILITY

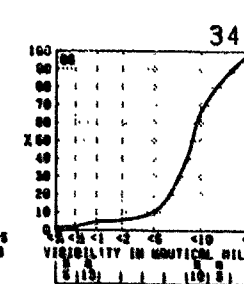
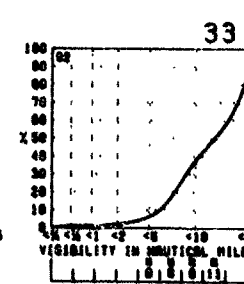
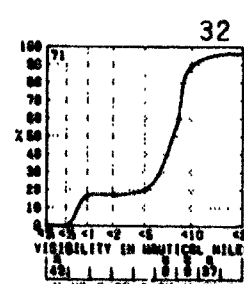
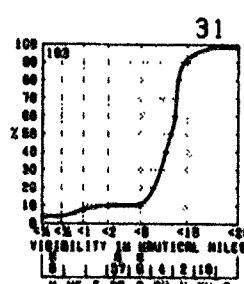
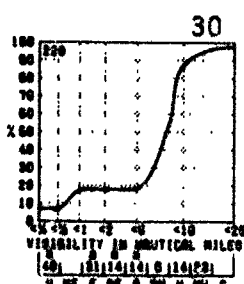
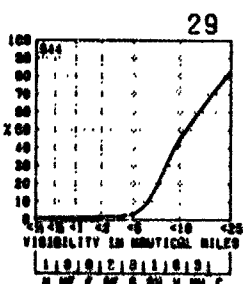
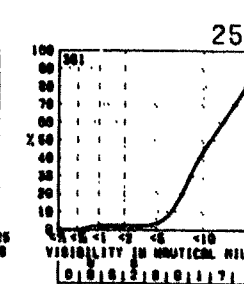
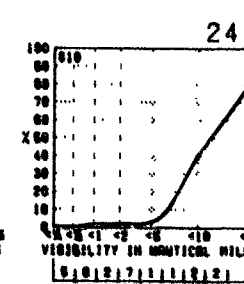
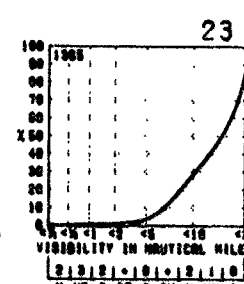
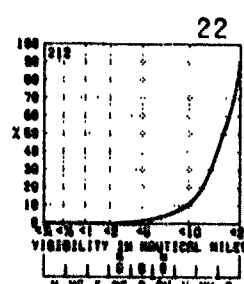
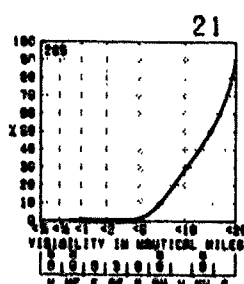
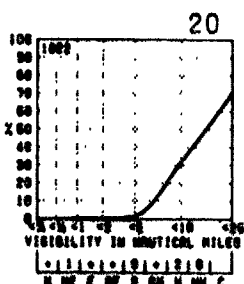
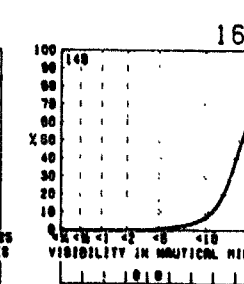
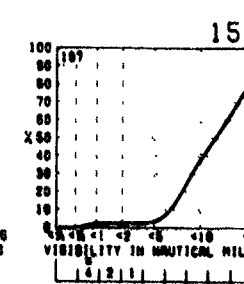
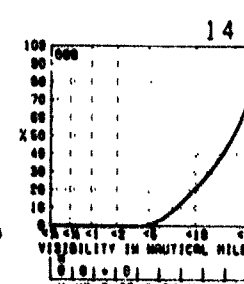
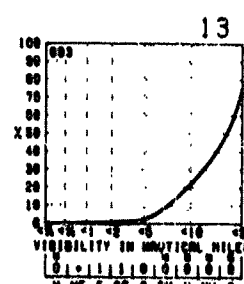
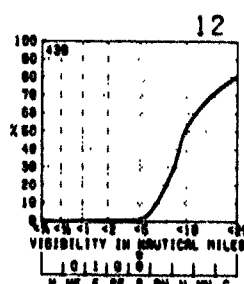
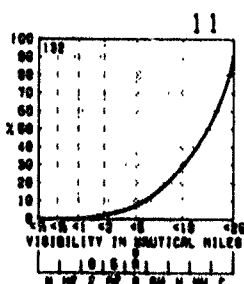
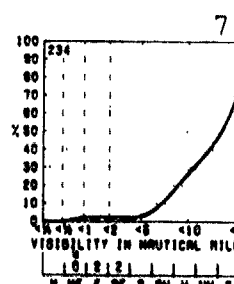
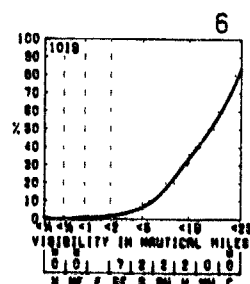
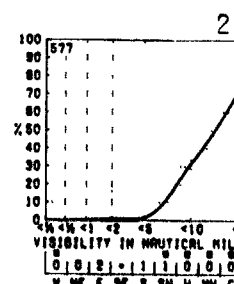
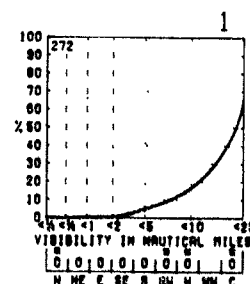


VISIBILITY



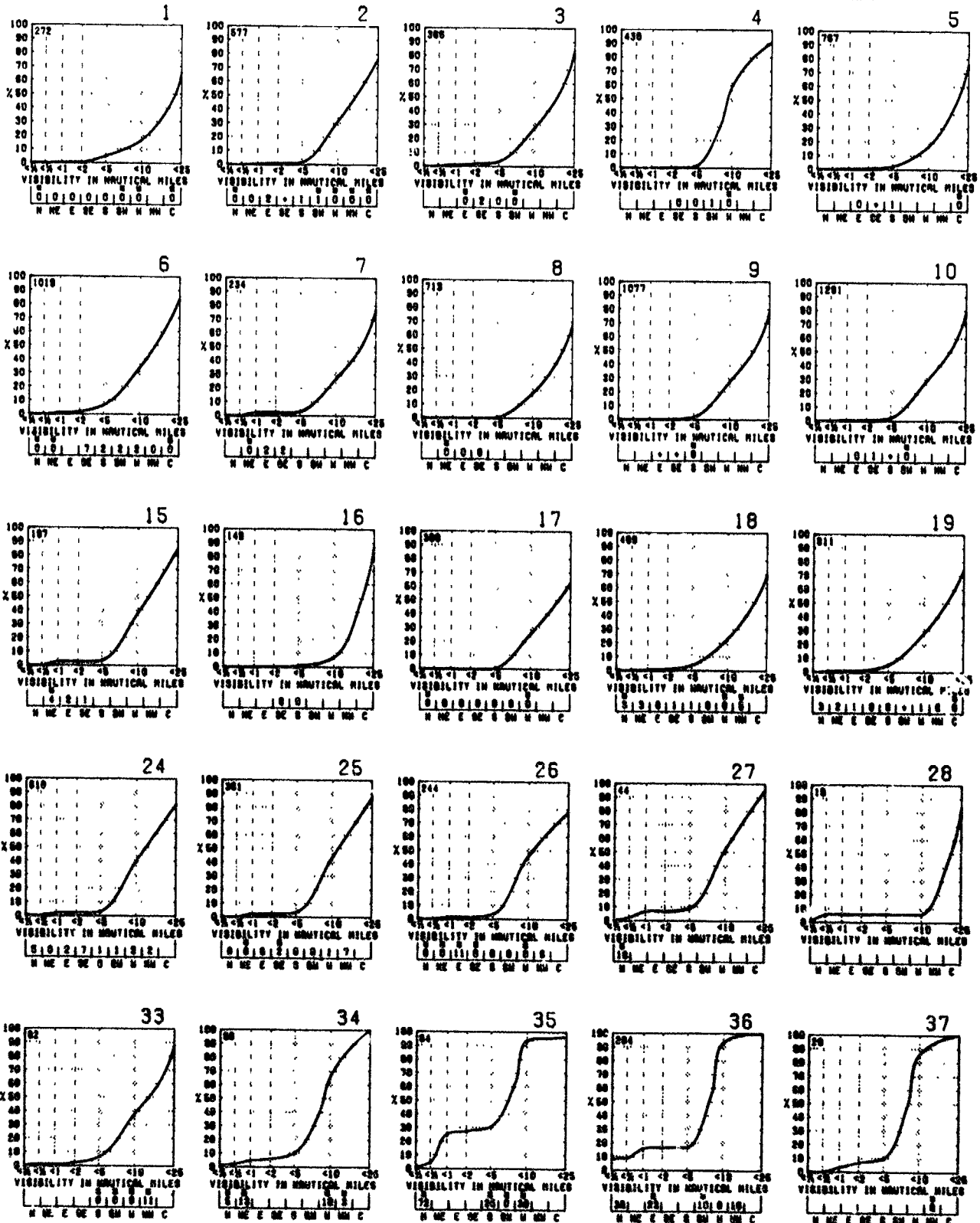
BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

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the visibility intersect.

occurrence of visibility

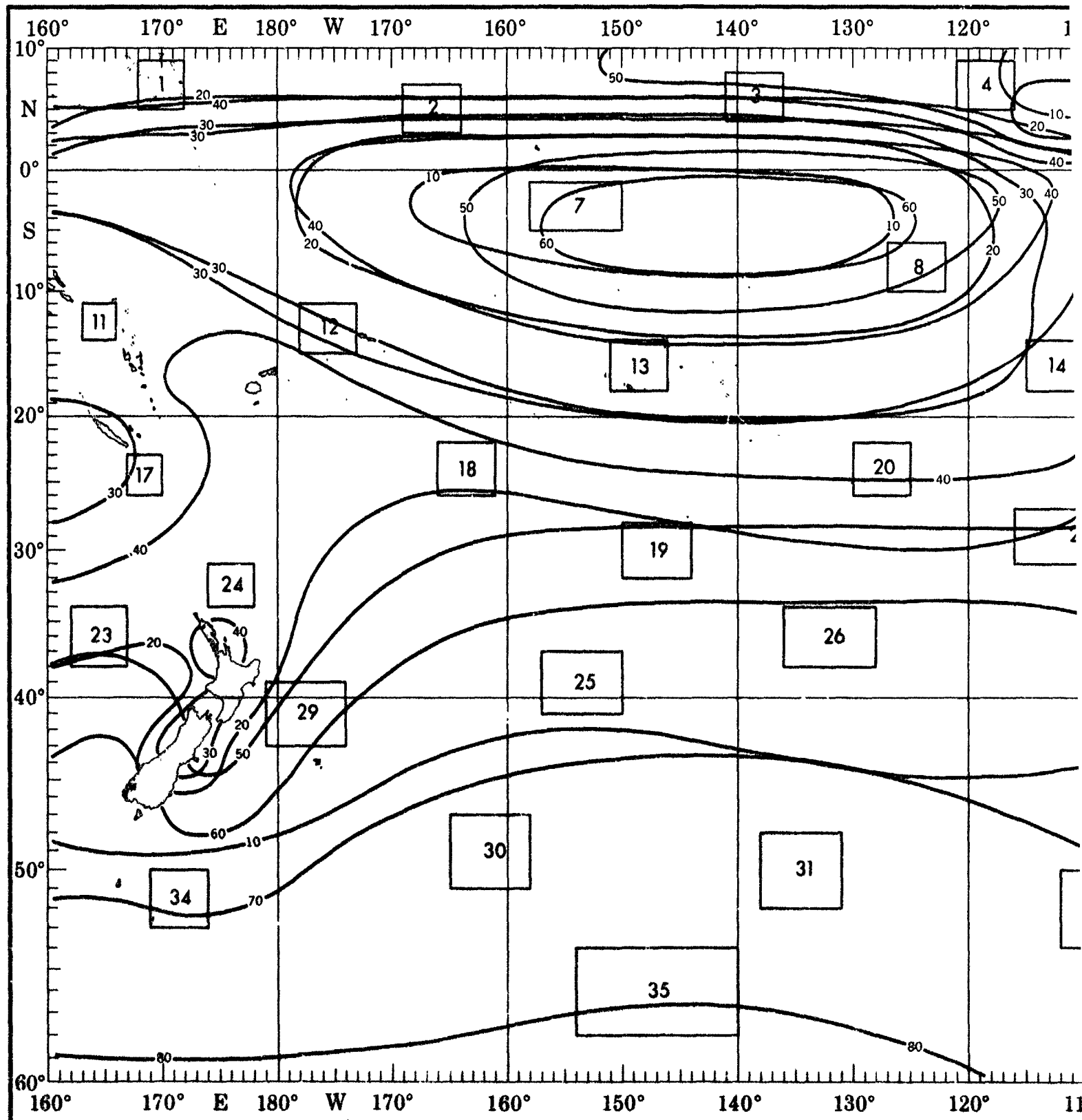
autical miles were
e is given if less than 10
An asterisk indicates
bility and wind direction

miles)

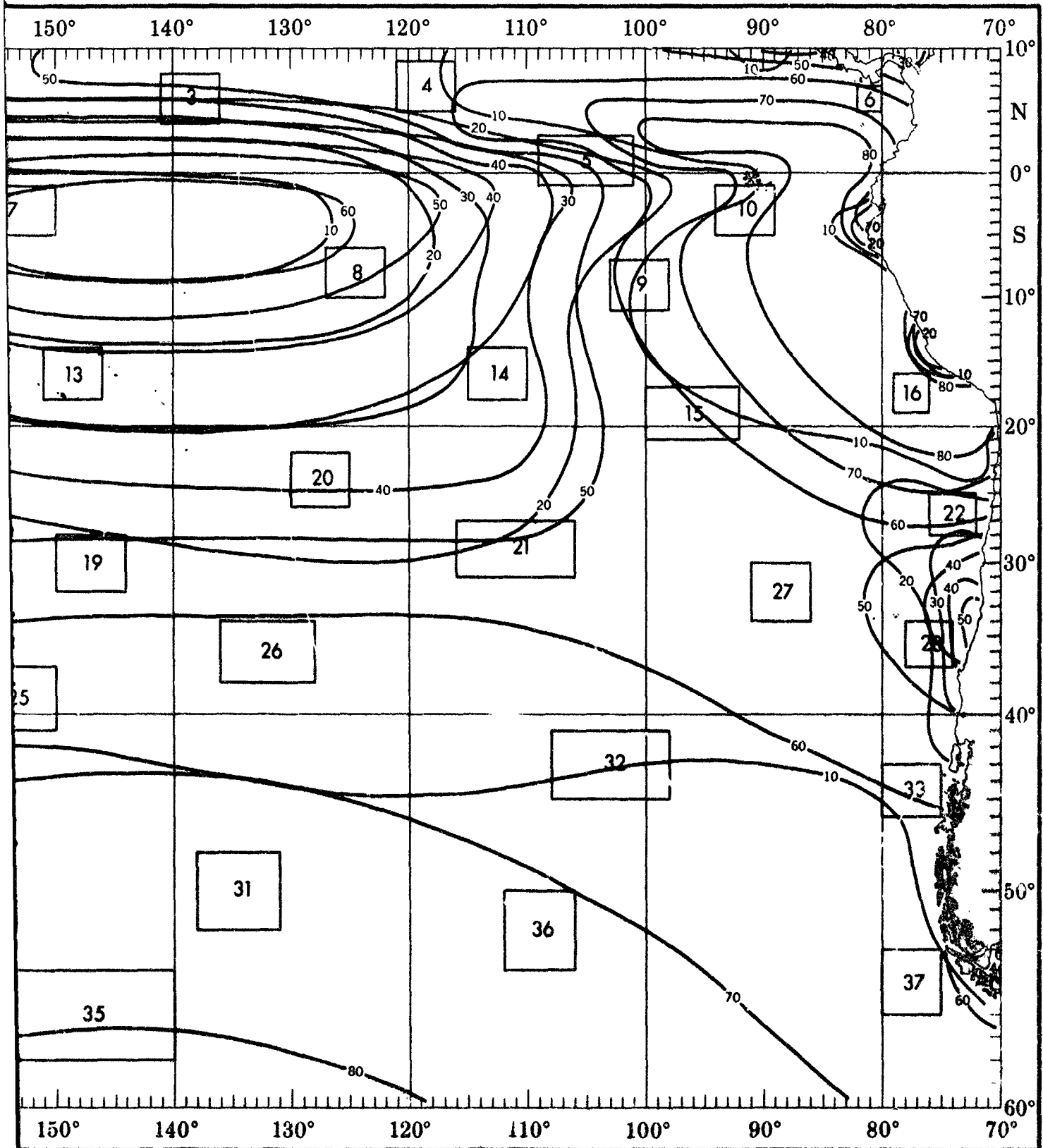
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

2

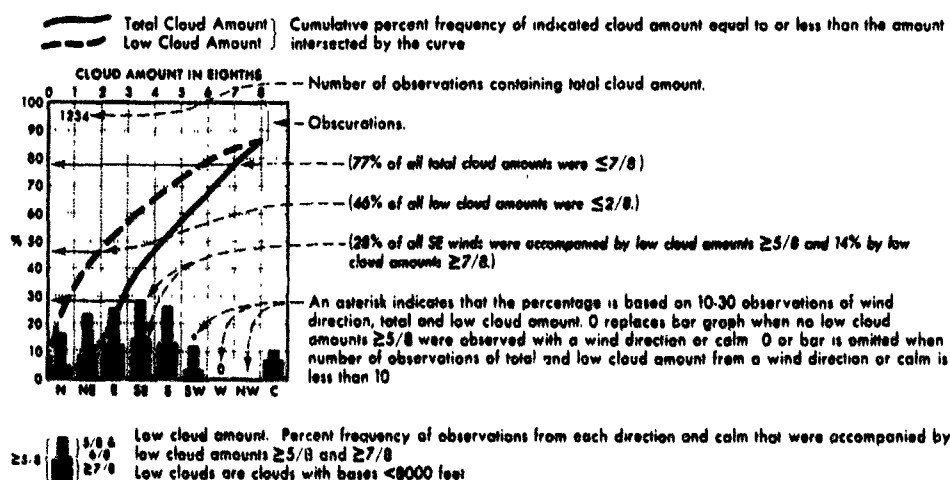
SEPTEMBER



CLOUD COVER

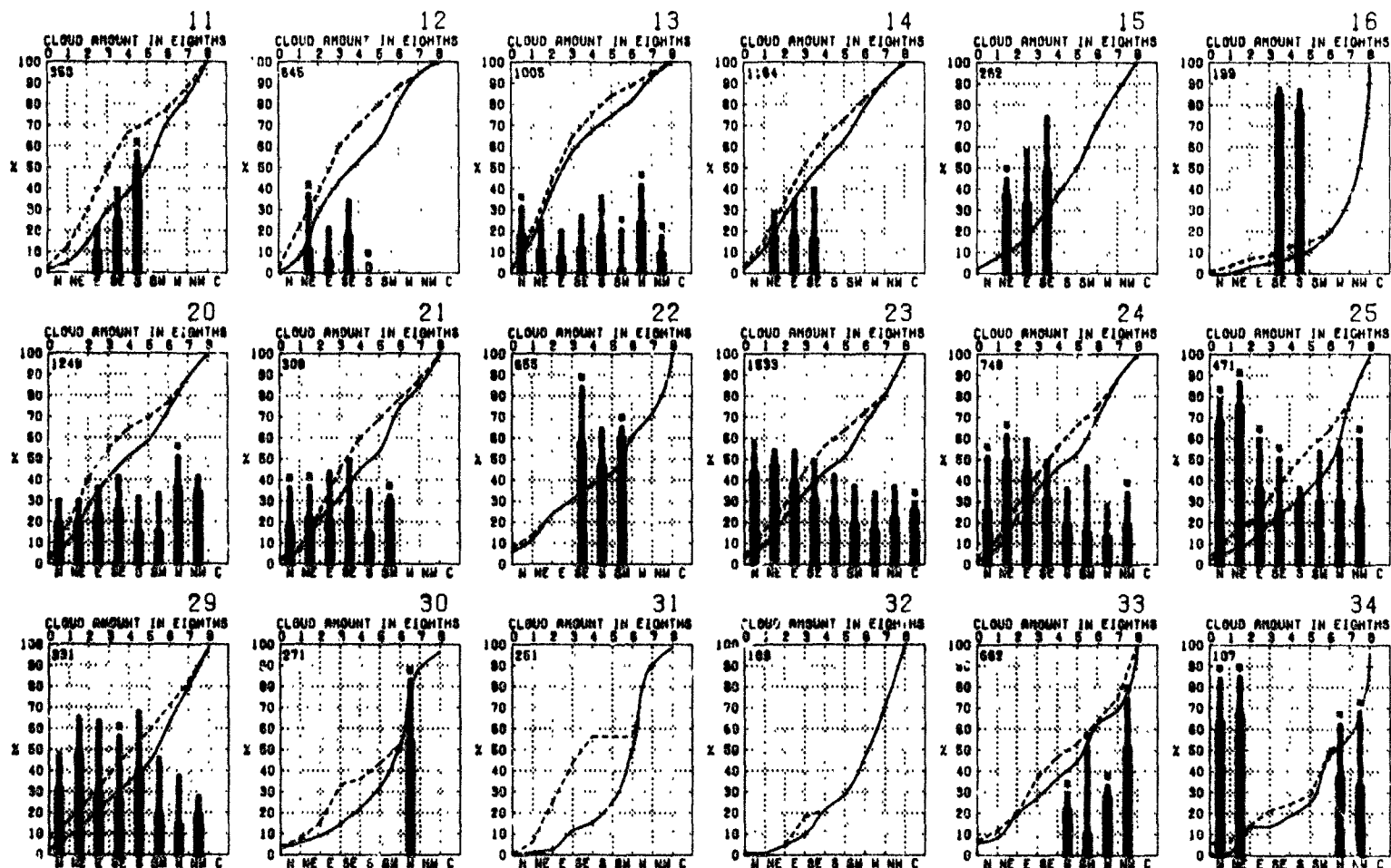


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard
 The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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equal to or less than the amount

hours $\geq 5/8$ and 14% by low

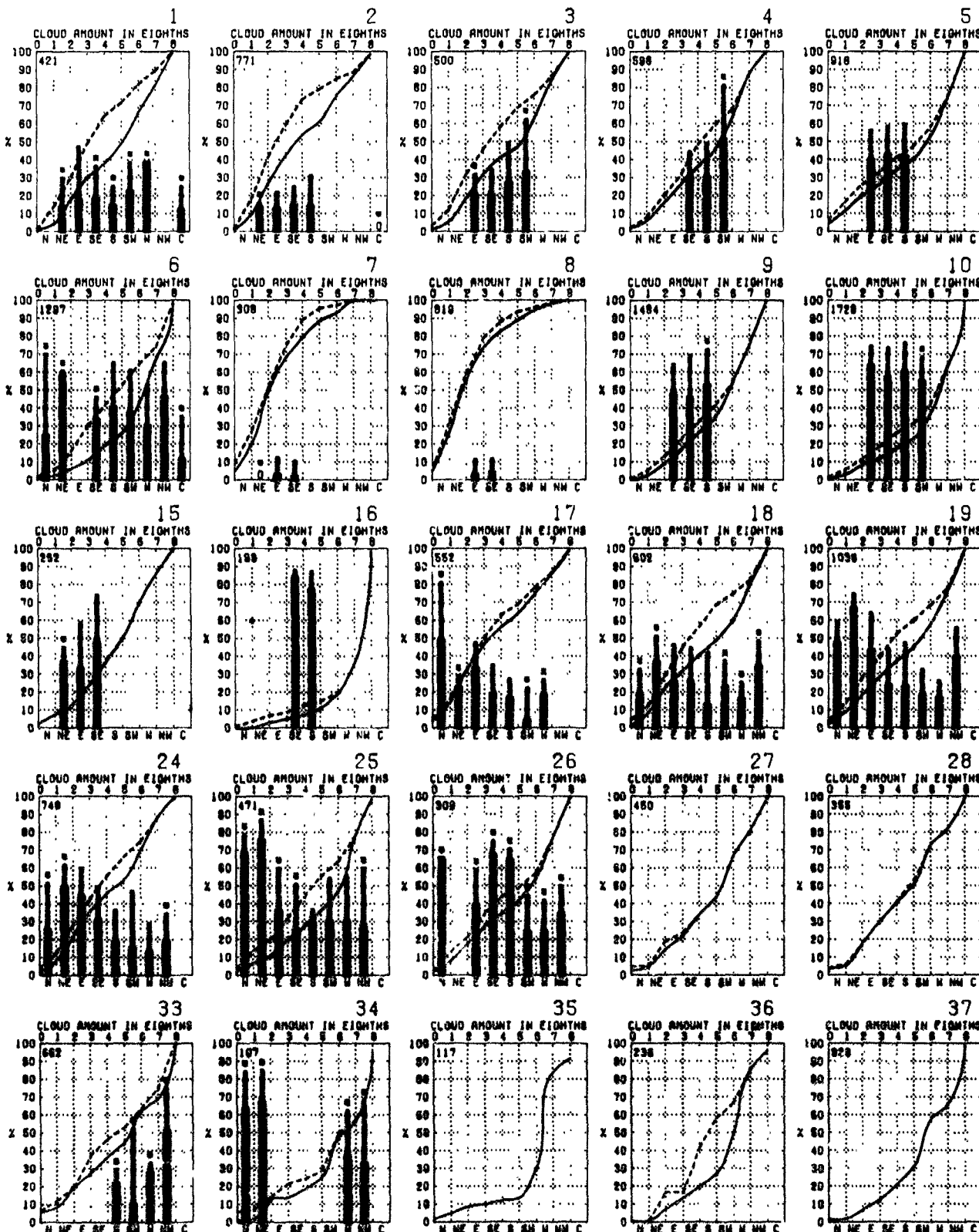
30 observations of wind
graph when no low cloud
calm. 0 or bar is omitted when
from a wind direction or calm is

calm that were accompanied by

13

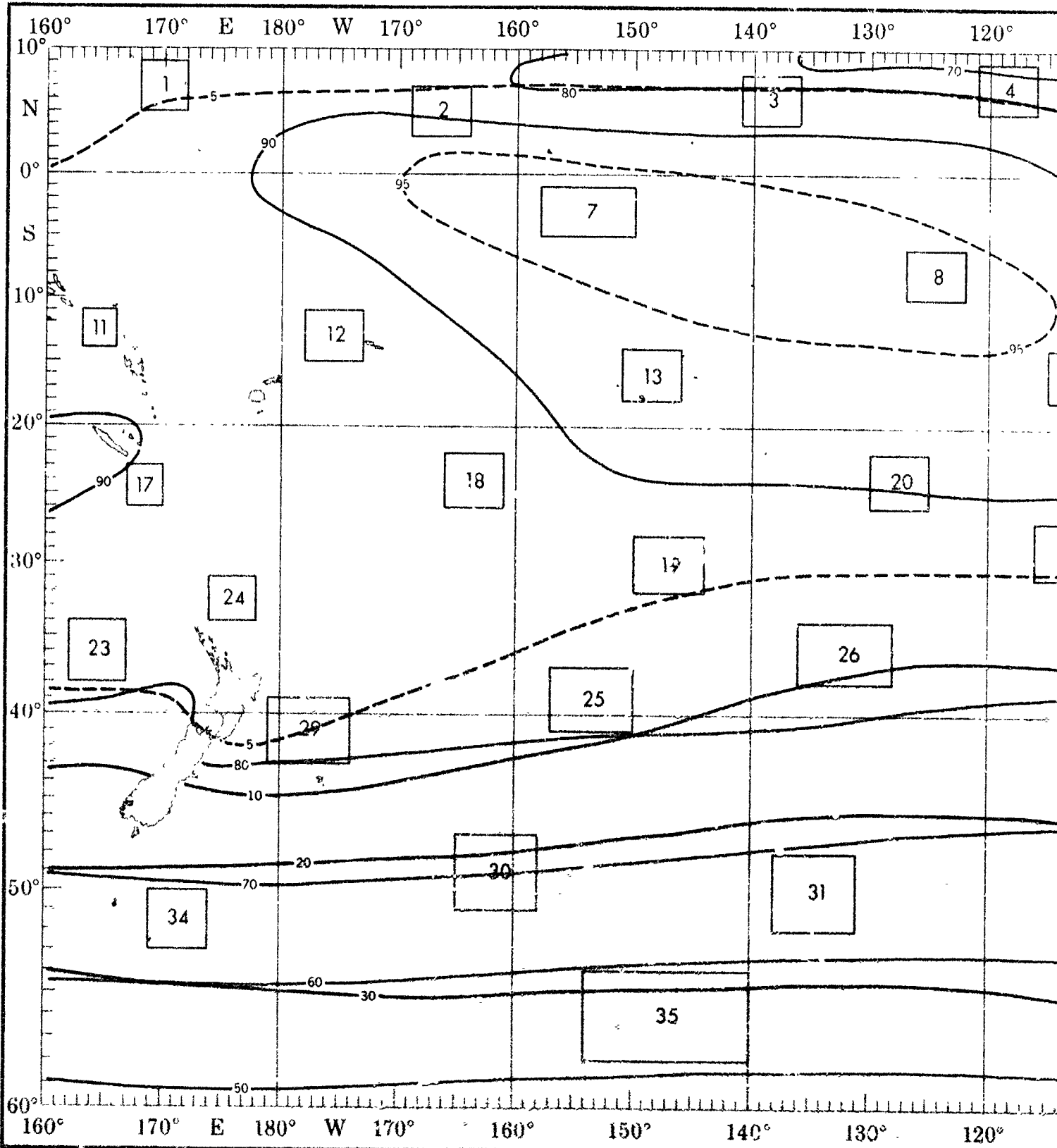
22

1

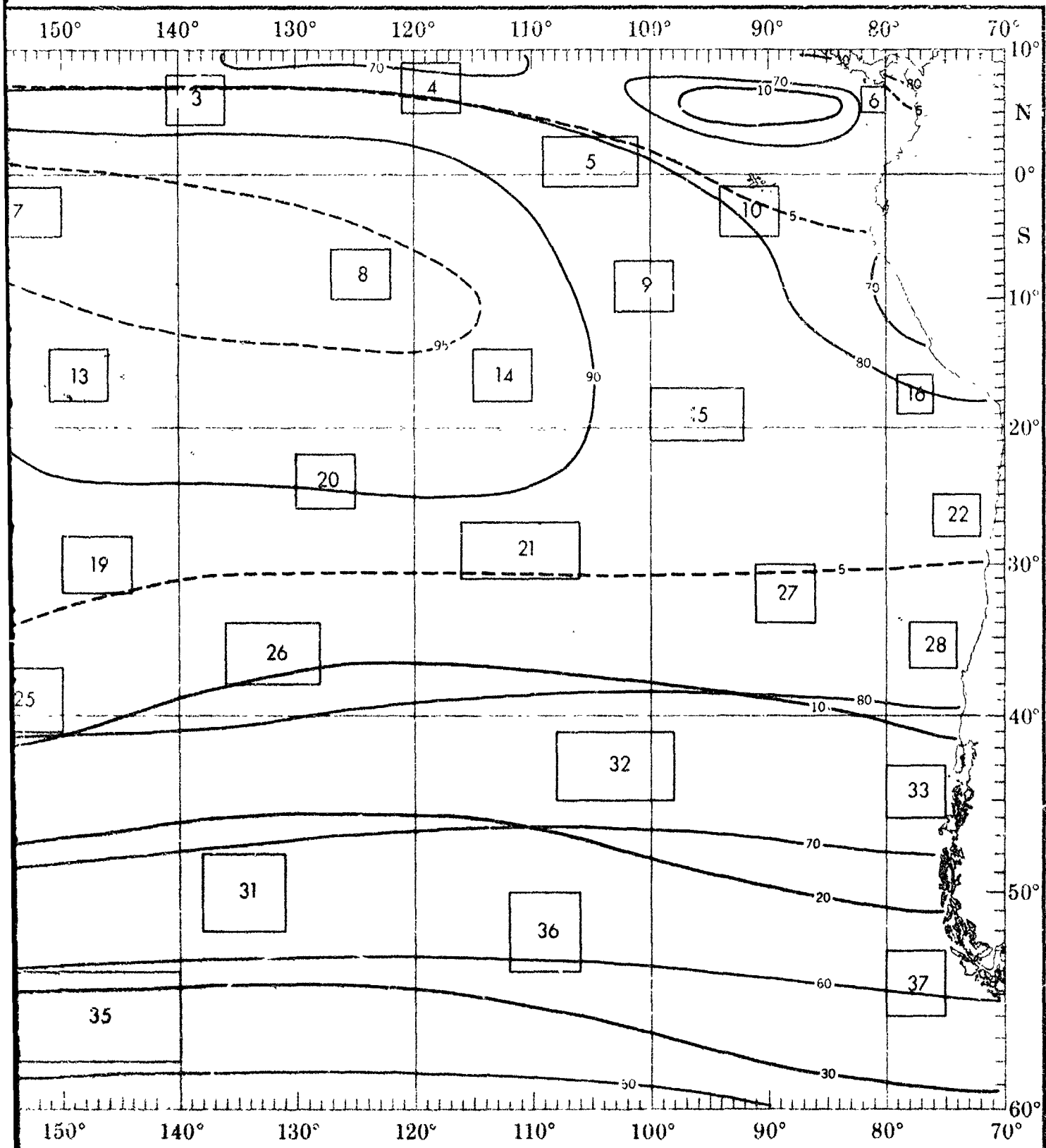


the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility.

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Obscurations are included under ceiling "0 <1.5".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

--- (2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

-.+ indicates $<.5\%$ but ≥ 0 .

- Number of observations

		VISIBILITY						
		40	44	48	52	56	60	270
LOW CLOUD CELLS	NC	0	0	+	+	3	13	64
	30-999	0	0	0	0	0	+	1
	30-529	0	+	0	0	0	0	4
	70-433	0	+	1	1	1	2	2
	10-470	0	+	1	1	1	2	2
	6-470	0	1	0	0	+	+	0
	2-96	+	+	0	0	+	+	0
	15-63	+	0	0	0	0	0	0
0-15	+	0	0	0	0	0	0	

	VISIBILITY					
	<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1
WC	0	0	0	1	4	51
80-90	0	0	0	0	0	1
30-80	0	0	0	0	1	1
20-30	0	0	0	0	2	5
10-20	0	0	0	0	2	8
5-10	0	0	0	1	4	10
3-5	0	0	0	0	0	1
1-3	0	0	0	0	0	0
0-1	0	0	0	0	0	0

		VISIBILITY				
		<1/2	1/2-1	1-2	2-5	>5
LOW CLOUD CEILING	NC	0	0	0	0	2
	30-99	0	0	0	0	1
	95-99	0	0	0	0	1
	90-99	0	0	0	0	1
	10-99	0	0	0	1	1
	5-10	0	0	0	1	2
	3-5	0	0	0	0	0
	1-3	0	0	0	0	0
0-1	0	0	0	0	1	

		VISIBILITY				
		1/4	1/2	3/4	1	2 or more
LOW CLOUD CEILING	NC	0	0	0	1	3
	00-00	0	0	0	0	0
	00-00	0	0	0	0	1
	00-00	0	0	0	0	2
	00-00	0	0	0	2	4
	00-10	0	0	0	1	4
	00-00	0	0	0	1	1
	00-00	0	0	0	0	0

		VISIBILITY				
		1/4	1/2	3/4	1	2
LOW CLOUD CEILING	NC	0	0	0	1	3
	50-99	0	0	0	0	0
	100-199	0	0	0	0	0
	200-299	0	0	0	0	0
	300-399	0	0	0	0	0
	400-499	0	0	0	0	0
	500-599	0	0	0	0	0
	600-699	0	0	0	0	0

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling <600 feet and/or visibility <2 nautical miles

		VISIBILITY						11
		<1/2	1/2	3/4	1	2	3	4
LOW CLOUDS	CEL 1/8	0	0	0	0	1	9	61
	00-05	0	0	0	0	1		1
	05-10	0	0	0	0	0	0	0
	10-15	0	0	0	2	2		1
	15-20	0	0	2	1	1		7
	20-25	0	0	1	0	2		0
	25-30	0	0	0	1	2		0
	30-35	0	0	0	0	0		0

		VISIBILITY						12
		<1/4	1/4-1/2	1/2	3/4-1	>1	10	
LOW CLOUD CELLING	00	0	0	0	0	2	70	
	00-00	0	0	0	0	0	1	
	00-00	0	0	0	0	2	0	
	00-00	0	0	0	0	0	2	
	10-00	0	0	0	0	3	14	
	00-10	0	0	0	0	1	3	
	00-0	0	0	0	0	1	1	
	00-0	0	0	0	0	0	1	

		VISIBILITY							13
		<1/8	1/8	1/4	1/2	3/4	1.0	10	
LOW CLOUD CEILING	05	0	0	0	1	0	07		
	00-00	0	0	0	0	+	+		
	00-00	0	0	0	+	1	1		
	00-00	0	0	0	+	2	6		
	00-00	+	0	0	+	2	5		
	0-10	0	0	0	+	1	3		
	0-0	+	+	0	0	+	0		
	0-0	0	0	+	0	0	0		
0-1.0	0	0	+	0	0	0			

		VISIBILITY								14
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-2	2-4	>4	
LOW CLOUD CEILING	00	0	0	0	0	+	3	02		
	00-00	0	0	0	0	0	0	2		
	00-00	0	0	0	0	0	+	4		
	00-00	0	0	0	0	0	1	6		
	00-00	0	0	0	0	+	1	14		
	0+0	0	0	+	+	+	1	6		
	0+0	0	0	0	0	0	0	+		
	0+0	0	0	0	0	0	0	0		
	0+0	0	0	0	0	0	0	0		

		VISIBILITY								15
		1/4	1/2	3/4	1	2	3	4	5	
LOW CLOUD CEILING	00	0	0	0	0	0	3	36		
	00-00	0	0	0	0	0	0	1		
	00-05	0	0	0	0	0	0	1		
	00-10	0	0	0	0	1	1	1		
	10-20	0	0	0	2	3	22			
	20-40	0	0	0	0	3	18			
	40-60	0	0	0	0	0	0			
	60-80	0	0	0	0	0	0			
	80-100	0	0	0	0	0	0			

		VISIBILITY				1
		0.00	0.01	1.00	2.00	
LOW CLOUD FILLING	00	0	0	0	0	1
	00-00	0	0	0	0	0
	00-00	0	0	0	0	2
	00-00	0	0	0	0	1
	10-00	0	0	0	0	3
	0-10	0	0	0	0	1
	0-0	0	0	0	0	0
	1-0-0	0	0	0	0	0

		VISIBILITY						20
		0-10	10-11	11-12	12-16	16-20	20-30	
JAN CLASS C ELLING	00	0	0	0	0	0	0	00
	00-00	0	0	0	0	0	0	1
	00-00	0	0	0	0	0	1	0
	00-00	0	0	0	0	0	2	0
	10-00	0	0	0	0	0	3	0
	0-10	0	0	0	0	0	3	0
	0-0	0	0	0	0	0	0	0
	1-0-0	0	0	0	0	0	0	0

		VISIBILITY					21
		1/4	1/2	3/4	1	2	3
LOW CLOUD CELLING	00	0	0	0	0	2	87
	00-05	0	0	0	0	1	1
	05-10	0	0	0	0	0	3
	10-15	0	0	0	0	1	20
	15-20	0	0	0	0	1	11
	20-25	0	0	0	0	1	4
	25-30	0	0	0	0	1	1
	30-35	0	0	0	1	0	0

		VISIBILITY										22		
		1/4	1/2	3/4	1	2	3	4	5	6	7	8	9	10
LOW CLOUD CELLS	bc	0	0	0	0	0	0	1	22					
	00-10	0	0	0	0	0	0	1	0					
	10-20	0	0	0	0	0	0	0	3					
	20-30	0	0	0	0	0	0	0	10					
	30-40	0	0	0	0	1	0	0	91					
	40-50	0	0	0	0	0	0	2	10					
	50-60	0	0	0	0	1	1	0						
	60-70	0	0	0	0	0	0	0	1					
	70-80	0	0	0	0	0	0	0	0	1				
	80-90	0	0	0	0	0	0	0	0	1				

		VISIBILITY						23
		<1/4	1/4	1/2	3/4	5/8	1	10
LOW CLOUD CEILING	MC	0	0	0	0	3	84	
	00-05	0	0	0	0	0	0	
	06-10	0	0	0	0	0	1	
	10-15	0	0	0	0	1	4	
	15-20	0	2	0	1	5	10	
	0-10	0	0	0	1	4	7	
	0-5	0	0	0	0	1	1	
	1-5	0	0	0	0	0	0	

		VISIBILITY					24
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	10
NC		0	2	0	0	4	52
SO-NO		0	0	0	0	0	1
NO-SO		0	0	0	0	0	1
NO-NC		0	0	0	0	0	7
NO-NO		0	0	0	0	3	10
0-1.0		0	0	0	0	4	0
0-0		0	0	0	1	0	0
1.0-0		0	0	0	0	0	0
0-1.0		0	0	0	0	0	0

	VISIBILITY					2
	1/4	1/2	3/4	1	2	
00	0	0	0	+	3	4
00-00	0	0	0	0	0	
00-50	0	0	0	0	0	
00-99	0	0	0	0	1	
10-29	0	0	0	+	2	2
3-10	0	0	0	+	4	
3-6	0	0	0	+		
1-9-3	0	0	0	0	0	
0-1-6	0	0	0	0	0	+

		VISIBILITY						29
		1-0	1-1	1-2	1-3	1-4	1-5	
LOW CLOUD CELLING	00	0	0	0	0	0	0	40
	00-09	0	0	0	0	0	1	1
	05-09	0	0	0	0	0	0	2
	00-09	0	0	0	1	0	0	10
	10-09	0	0	0	1	0	0	10
	0-10	0	0	0	0	2	4	
	0-0	0	0	0	0	1	1	
	1-0-0	0	0	0	0	0	0	0
0-1-0	0	0	0	1	0	0		

		VISIBILITY					30
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1 or more
LOW CLOUD CELLING	nc	0	0	0	0	3	33
	00-09	0	0	0	0	0	0
	10-19	0	0	0	0	0	3
	20-29	0	0	0	0	3	3
	30-39	0	0	0	0	0	20
	40-49	0	0	0	3	10	0
	50-59	0	0	0	0	0	0
	60-69	0	0	0	0	0	0

		VISIBILITY						31
		≥10	9-10	8-9	7-8	6-7	5-6	3-5
LOW CLOUD CELLING	NC	0	0	0	0	0	7	47
	00-00	0	0	0	0	0	0	0
	00-00	0	0	0	0	0	0	13
	00-00	0	0	0	0	0	0	0
	10-00	0	0	0	0	0	0	20
	0-10	0	0	0	0	0	0	13
	0-00	0	0	0	0	0	0	0
	1-00	0	0	0	0	0	0	0

32

**INSUFFICIENT
DATA**

		VISIBILITY						33
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	10	
LOW CLOUD CEILING	ME	0	0	0	0	0	37	
	00-00	0	0	2	0	0	0	
	00-00	0	0	0	0	2	3	
	00-00	2	0	0	0	2	3	
	10-00	0	0	0	2	2	0	
	0-1.0	0	0	0	0	14	11	
	0-0	0	0	0	0	2	0	
	1.0-4.0	0	0	0	0	0	0	
0-1.0	0	0	0	0	0	0		

		VISIBILITY				
		1/4	1/2	3/4	1	2
10-00	0	0	0	0	1	1
11-00	0	0	0	0	4	
12-00	0	0	0	0	3	
13-00	0	0	0	1	7	1
14-00	0	0	0	1	16	
15-00	0	0	0	0	4	
16-00	0	0	1	0	0	
17-00	0	0	0	0	0	
18-00	1	3	0	1	1	

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without regard to the source of the data. The isopleth analyses (opposite page) are based on all available data subjectively adjusted to the same scale.

Y

b) when low cloud amount

ances of $N_h < 5/8$

✓ with viability ≥ 5 but < 10

Depth ≥ 5 nautical miles

		VISIBILITY						
		<1/2	1/2-1	1-2	2-4	4-10	≥10	
LOW CLOUD CEILING	NC	0	0	0	1	4	81	
	50-99	0	0	0	0	0	1	
	35-50	0	0	0	0	1	1	
	20-35	0	0	0	1	2	5	
	10-20	0	0	0	0	2	8	
	5-10	0	0	0	1	4	10	
	3-5	0	0	0	0	0	1	
	1-3	0	0	0	0	0	0	
0-1	0	0	0	0	0	0		
		178						

		VISIBILITY							2
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	010	
LOW CLOUD CEILING	NC	0	0	0	+	2	7	1	
	50-99	0	0	0	0	0	0	0	
	35-49	0	0	0	0	0	1	1	
	20-35	0	0	0	0	0	1	3	
	10-20	0	+	0	1	1	1	10	
	0-10	0	0	+	1	2	4	0	
	3-4	0	0	0	0	+	0	0	
	1-3	0	0	0	0	0	0	+	
0<1	0	0	0	0	0	1	0		
338									

		VISIBILITY					
		<1/4	1/4-1/2	1/2-5/8	5/8-1	1-10	10+
LOW CLOUD CEILING	NC	0	+	+	1	4	54
	PO<80	0	0	0	0	0	0
	35<80	0	0	0	0	1	2
	20<80	0	0	+	0	0	7
	10<80	0	0	0	+	4	11
	0<10	0	0	+	1	4	7
	3<0	0	0	0	+	2	+
	1<5<3	0	0	0	0	0	0
0<1<5	+	0	0	0	0	0	

		VISIBILITY					
		<1/2	1/2-1	1-2	2-8	8-10	
LOW CLOUD CEILING	MC	0	0	0	0	2	46
	50-99	0	0	0	0	1	0
	25-50	0	0	0	0	1	8
	20-25	0	0	0	0	1	7
	10-20	0	0	0	1	4	18
	0-10	0	0	0	1	5	7
	3-8	0	0	1	1	1	2
	1.5-3	0	0	0	0	0	1
0-1.5	0	0	0	0	1	1	

		VISIBILITY					
		0.5	0.7	1	1.2	2	3
LOW CLOUD CEILING	NC	0	0	0	0	2	4
	80-80	0	0	0	0	+	2
	35-80	0	0	0	0	0	0
	80-35	0	0	0	+	2	10
	10-20	0	0	+	1	2	20
	0-10	0	0	0	1	1	12
	5-0	0	0	0	+	1	1
	1.5-3	0	0	0	0	+	+
0-1.5	+	0	0	0	0	+	

		VISIBILITY						
		>1/2	1/4-1	1-2	2-5	>10	10	
NC		0	0	0	1	3	38	
LOW CLOUD CEILING	90-99	0	0	0	0	+	1	
	80-89	0	+	0	0	1	2	
	70-79	0	0	+	+	2	7	
	60-69	0	0	0	2	4	17	
	50-59	0	+	+	1	4	12	
	40-49	0	0	+	1	1	1	
	30-39	0	0	+	+	+	+	
	20-29	0	0	0	+	0	+	

		VISIBILITY					
		1/4	1/2	3/4	1	2	3
LOW CLOUD CEILING	NC	0	0	0	1	5	98
	00-00	0	0	0	0	0	0
	00-50	0	0	0	0	0	2
	00-90	0	0	0	0	0	1
	10-20	0	0	0	0	0	6
	0-10	0	0	0	0	0	1
	3-0	0	0	0	0	0	0
	1-0-0	0	0	0	0	0	0
0-1-0	0	0	0	0	0	0	

		VISIBILITY						
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10
LOW CLOUD CEILING	MC	0	0	0	0	+	3	85
	30-40	0	0	0	0	+	+	
	30-60	0	0	0	0	0	0	
	20-30	0	0	0	0	0	0	1
	10-20	0	0	0	0	0	+	8
	0-10	0	0	0	0	+	+	1
	3-8	0	0	0	0	0	0	1
	1-3	0	0	0	0	0	0	0
0-1	0	0	0	0	0	0	0	

	VISIBILITY					
	1/4	1/2	3/4	1	2	3
NC	0	0	0	0	2	3
00-00	0	0	0	0	0	1
00-00	0	0	0	0	0	0
00-00	0	0	0	0	2	3
10-00	0	0	0	0	2	2
0-10	0	0	0	0	1	1
0-0	0	0	0	0	0	0
1-00	0	0	0	0	0	0
0-10	0	0	0	0	0	0

		VISIBILITY					
		1/4	1/2	3/4	1	2	3
NC		0	0	0	0	2	2
00-00		0	0	0	0	0	0
00-00		0	0	0	0	0	1
00-00		0	0	0	0	3	1
10-00		0	0	0	1	4	2
0-10		0	0	0	1	3	1
3-0		0	0	0	0	1	0
1-0-3		0	0	0	0	0	0
0-1-0		0	0	0	0	0	0

		VISIBILITY						14
		1/4	1/2	3/4	1	2	3	4
LOW CLOUD CEILING	MC	0	0	0	0	0	3	62
	50-99	0	0	0	0	0	0	2
	30-49	0	0	0	0	0	0	4
	10-29	0	0	0	0	0	1	6
	5-9	0	0	0	0	0	1	14
	0-4	0	0	0	0	0	1	8
	0-1	0	0	0	0	0	0	0
	0-1/2	0	0	0	0	0	0	0

		VISIBILITY						15
		0 1/4	1/4	1/2	3/4	1	10	
LOW CLOUD CEILING	00	0	0	0	0	0	3	30
	00-00	0	0	0	0	0	0	1
	00-00	0	0	0	0	0	0	1
	00-00	0	0	0	0	0	1	11
	00-00	0	0	0	0	2	3	22
	0 1/2	0	0	0	0	0	3	10
	3-6	0	0	0	0	0	0	0
	10-00	0	0	0	0	0	0	0
0 1/2	0	0	0	0	0	0	0	

		VISIBILITY						16
		<1/2	1/2-1	1-2	2-5	>5	10	
LOW CLOUD CEILING	NC	0	0	0	0	1	11	
	00-00	0	0	0	0	0	4	
	00-09	0	0	0	0	2	7	
	00-09	0	0	0	0	1	11	
	10-00	0	0	0	0	3	04	
	00-10	0	0	0	0	1	14	
	00-0	0	0	0	0	0	2	
	10-00	0	0	0	0	0	0	
00-10	0	0	0	0	0	0		

[illegible]

		VISIBILITY						18
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUDS CEILING	MC	+	0	0	+	1	50	
	00-00	0	0	0	+	0	1	
	00-00	0	0	0	0	0	1	
	00-00	0	0	0	0	0	2	
	10-00	0	0	0	1	1	10	
	0-10	0	+	+	1	1	0	
	0-0	0	0	0	0	1	1	
	1-0-0	0	0	0	0	0	0	
0-1-0	0	0	0	0	1	0		

		VISIBILITY					19
		0-1/2	1/2-1	1-3	3-5	5-10	
MC		0	0	+	+	4	40
00-00		0	0	0	0	0	
00-50		0	0	0	+	+	
00-95		0	0	0	1	1	
10-10		0	0	+	2	3	10
0-10		+	+	+	1	3	10
0-0		0	0	+	1	1	
1-0-0		0	0	0	+	+	
0-1-0		+	0	0	+	+	

	VISIBILITY				
	<1/4	1/4-1/2	1/2-3/4	3/4-1	>1
MC	0	0	0	0	3
60-80	0	0	0	0	0
35-55	0	0	0	0	1
20-35	0	0	0	0	1
10-20	0	0	0	1	0
0-10	0	0	0	1	4
0-5	0	0	0	0	1
1-5	0	0	0	0	0
0-1	0	0	0	0	0

	VISIBILITY					
	<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	MISS
NC	0	0	0	0	4	52
50-60	0	0	0	0	0	1
30-50	0	0	0	0	+	1
20-30	0	0	0	0	+	7
10-20	0	0	0	+	3	10
0-10	0	0	0	+	4	8
0-5	0	0	0	1	+	0
1-5-0	0	0	+	0	0	0
0-1-5	0	0	0	+	0	+

		VISIBILITY						
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5-10	10 or more
LOW CLOUD CEILING	NC	0	0	0	0	0	3	41
	80-90	0	0	0	0	0	0	2
	90-95	0	0	0	0	0	0	4
	20-35	0	0	0	0	0	1	0
	10-20	0	0	0	0	0	2	21
	0-10	0	0	0	0	0	4	0
	3-8	0	0	0	0	0	0	1
	1-5	0	0	0	0	0	0	0
		0-1.5	0	0	0	0	0	0

		VISIBILITY							
		<1/8	1/8	1/4	1/2	3/4	1	2	3 or more
LOW CLOUD CELLING	NC	0	0	0	0	0	3	40	
	50-99	0	0	0	0	0	0	1	
	30-49	0	0	0	0	0	0	1	
	10-29	0	0	0	0	0	2	6	
	0-9	0	0	0	2	1	23		
	0-10	0	0	0	2	6	13		
	0-5	0	0	0	2	1	2		
	0-1.5	0	0	0	0	0	0		

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-3	3-10
LOW CLOUD CELLING	NC	0	0	0	0	0	20
	00-00	0	0	0	0	0	0
	30-60	0	0	0	0	0	0
	60-90	0	0	0	0	0	3
	10-00	0	0	0	0	0	5
	0-10	0	0	0	0	0	5
	3-0	0	0	0	0	0	5
	1-5-0	0	0	0	0	0	6
0-1-5	5	0	0	0	0	0	

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10
LOW CLOUD CELLING	MC	0	0	0	0	0	4
	00-00	0	0	0	0	0	0
	00-00	0	0	0	0	0	1
	00-00	0	0	0	0	0	2
	00-00	0	0	0	0	0	0
	00-00	0	0	0	0	0	0
	00-00	0	0	0	0	0	0
	00-00	0	0	0	0	0	0

		VISIBILITY						33
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CEILING	MC	0	0	0	0	0	97	
	00-00	0	0	2	0	0	0	
	00-04	0	0	0	0	2	3	
	00-09	2	0	0	0	2	3	
	10-20	0	0	0	2	2	0	
	0-10	0	0	0	0	14	11	
	0-5	0	0	0	0	2	0	
	1.5-5	0	0	0	0	3	0	
0-1.5	0	0	0	2	0	0		

		VISIBILITY								34
		1/4	1/2	3/4	1	2	3	4	5	
LOW CLOUD CELLING	NC	0	0	0	0	0	13	13		
	00-00	0	0	0	0	0	4	0		
	05-00	0	0	0	0	0	3	0		
	00-05	0	0	0	0	1	7	10		
	10-00	0	0	0	1	10	0			
	0-10	0	0	0	0	4	4			
	0-05	0	0	1	0	0	0			
	1-0-3	0	0	0	0	0	0			
0-1-1	1	3	0	1	1	0			64	

INSUFFICIENT DATA

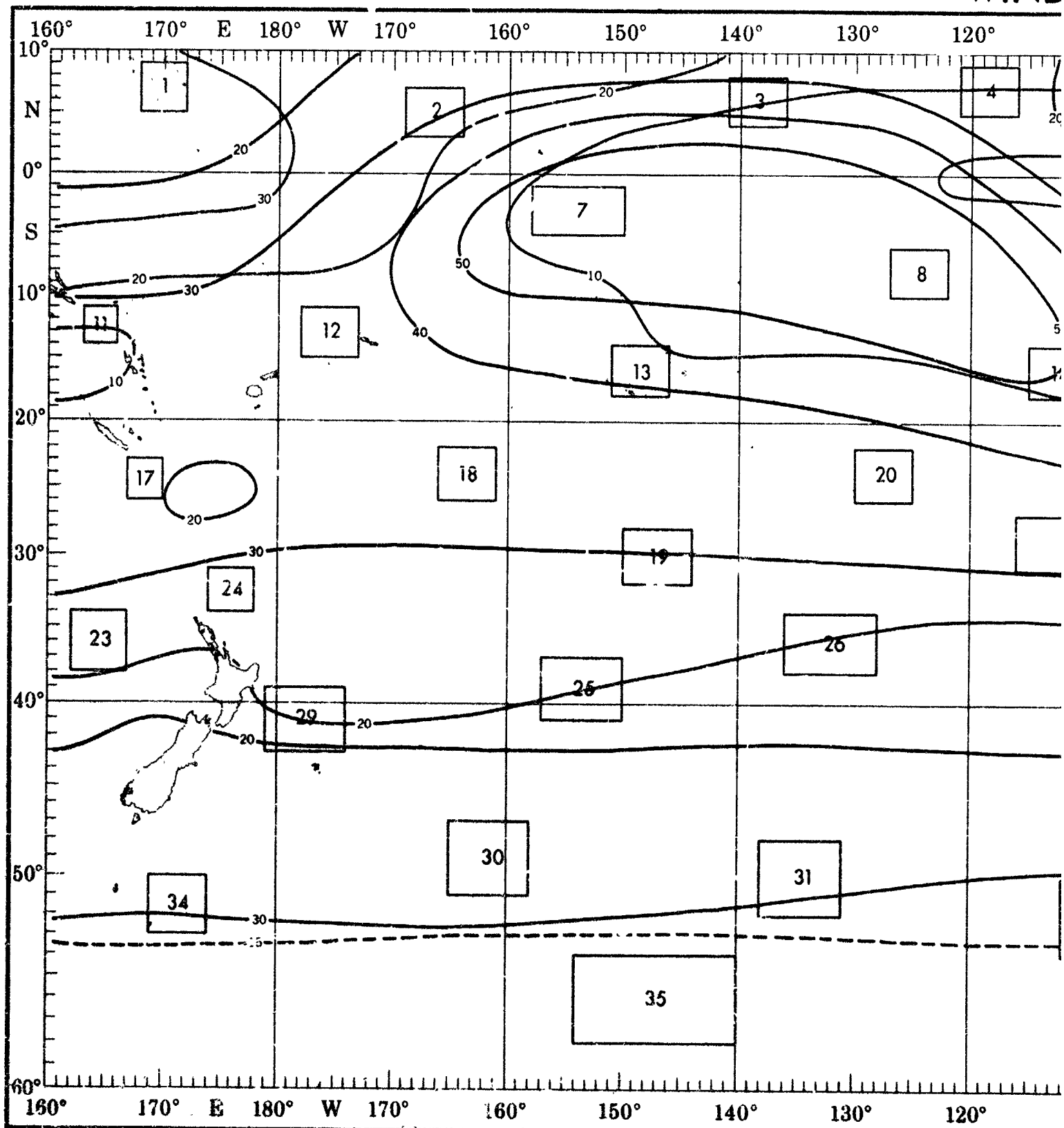
**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

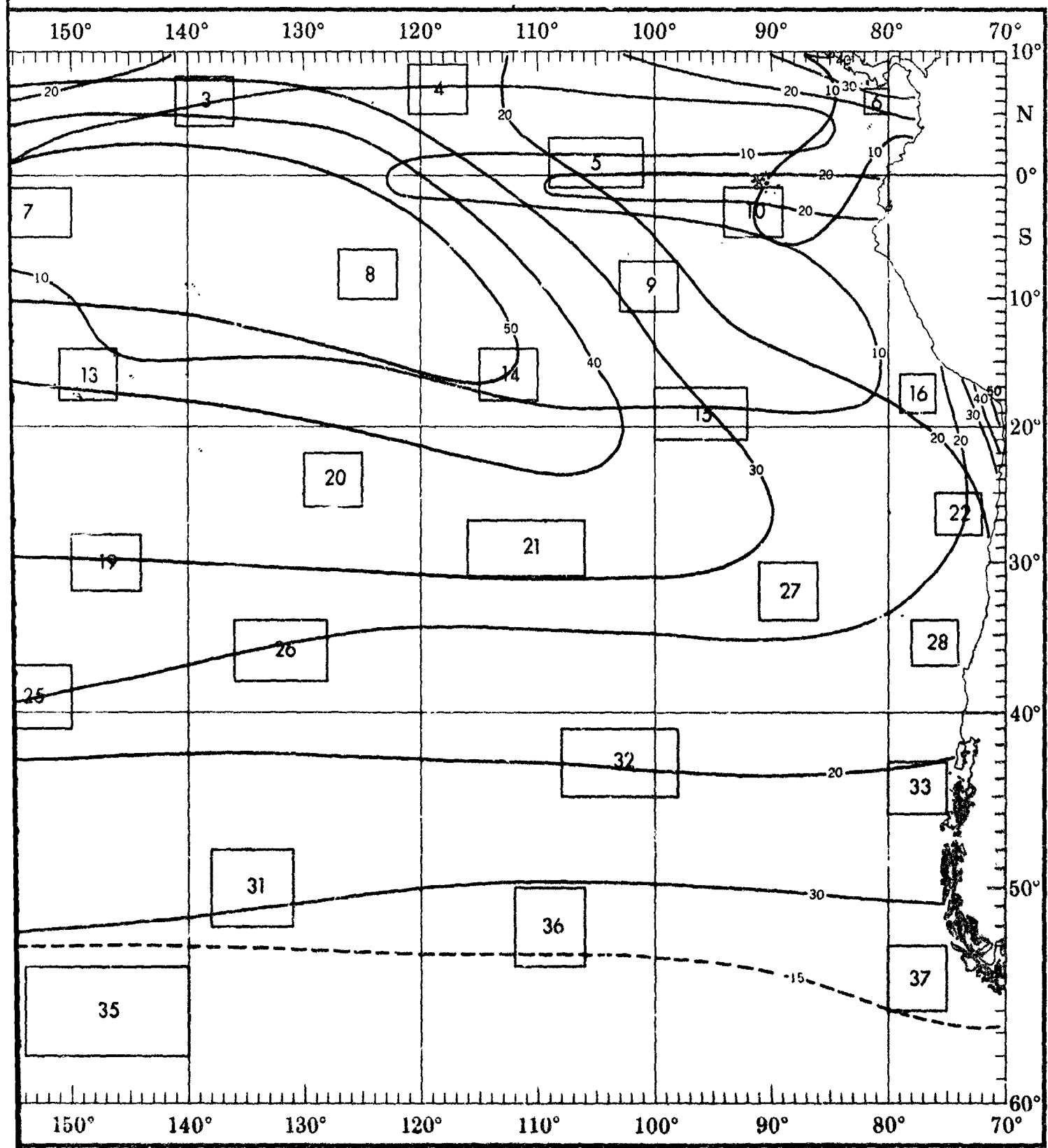
**INSUFFICIENT
DATA**

SEPTEMBER

WIND



WIND-VISIBILITY-CLOUDINESS



1 1 2

LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsby) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

--- (2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

- + indicates $<.5\%$ but >0

- Number of observations

ICC - Voly	0-5	6-10	11-20	21-30	31-40
<15.0 or <3	4	1	1	4	0
<6.0 or <3	2	2	1	1	4
Voly <2	1	2	1	2	4
<10.0 or <3	3	4	2	1	1
<10.0 or <3	8	9	6	3	2
Voly 2.5	9	11	12	3	1
2.50 & 2.5	12	13	15	7	3
N.C. 2.50	4	2	1	4	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-3	4-10	11-17	22-33	34-40
<1.5 OR <5	0	0	0	0	0
<8.4 OR <2	0	0	1	0	0
VSBY <2	0	0	0	0	0
<10.4 OR <2	0	8	10	0	0
<20.4 OR <5	2	11	14	0	0
VSBY 85	14	52	32	1	0
>60 >5	11	36	18	1	0
MC 4 >10	11	34	15	1	0

WIND SPEED (
LCC - VSBY	0- 3	4- 10	11- 21	
<1.5 & OR <.6	0	+	+	
<6 & OR <2	0	1	1	
VSBY <2	0	1	0	
<10 & OR <2	1	5	2	
<20 & OR <5	2	10	7	
VSBY >5	9	47	37	
>50 & >5	6	37	28	
NC & >10	6	38	27	

WIND SPEED (KNOTS)				
LCC - VSBY	0-3	4-10	11-21	22-33
<1.0 OR <1.5	0	+	+	0
<6.0 OR <2	+	3	2	+
VSBY <2	+	+	1	0
<10.0 OR <2	2	14	7	+
<20.0 OR <5	4	29	14	+
VSBY >5	10	20	20	+
>20.0 OR >5	5	29	8	0
MC > 10	7	27	7	0

WIND SPEED (
LCC - VSBT	0-3	4-10	11-21
<1.5 & OR <1.0	0	0	0
<8 & OR <2	0	0	0
VSBT <2	0	0	0
<10 & OR <2	0	0	1
<20 & OR <6	0	3	5
VSBT >5	1	33	63
>60 & >6	1	30	57
MC > 10	1	27	57

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions LCC ≥ 5000 ft., (or no LCC), V_{sky} ≥ 5 nm. and V_{wind} 11-21 kts

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC <300 ft., Vslby <1 nm., Wind <6 or ≥34 kts.

Satisfactory conditions between poor and optimum

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10	11-19	20-33	34 or more
<1.0 & 00 < 0	0	0	0	0	0
<0.4 & 00 < 0	0	1	1	1	3
VSBY < 0	0	0	0	0	3
<10 & 00 < 0	0	4	9	1	3
<20 & 00 < 0	0	8	10	1	3
VSBY > 0	3	31	52	4	0
>0.4 & 00	3	27	31	4	0
MC 4 > 10	3	22	31	3	0

		WIND SPEED (KNOTS)				
LCC - VERT		0-9	10	11-19	20-29	30 or more
<1.0 & ON +S		0	1	0	0	0
+0 & ON +S		0	2	0	0	0
VERT +S		0	0	0	0	0
<1.0 & ON +S		0	4	1	0	0
+0 & ON +S		0	10	1	3	0
VERT NS		4	47	48	3	0
+0 & ON NS		4	36	33	1	0
NC & ON NS		4	35	30	1	0

13					
WIND SPEED (KNOTS)					
L-C - VSBY	0-3	4-10	11-20	21-30	30+
*1-5.0M +0	0	+	0	+	0
*6.0M +2	0	1	0	+	0
VSBY +2	0	1	0	+	0
*10.0M +2	+	2	2	1	0
*20.0M +6	+	4	8	2	0
VSBY +6	4	38	50	8	0
*30.0M +6	3	29	39	8	0
MC +10	3	27	34	4	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10-19	20-29	30-39	40+
<1.0 & OR <.8	0	0	0	0	0
<.8 & OR <.6	0	+	+	0	0
VSBY <.8	0	0	+	0	0
<1.0 & OR <.8	+	2	5	+	0
<.80 & OR <.6	+	5	15	3	0
VSBY >.8	1	25	65	8	0
>.80 & >.6	1	18	42	6	0
MC > 1.0	1	17	39	6	0

		WIND SPEED (KNOTS)				
LCC - V007		0-3	4-10	11-20	21-30	31-40
<1.0 00 0.0		0	0	0	0	0
<0.0 00 0.0		0	0	0	0	0
V007 0.0		0	0	0	0	0
<1.0 00 0.0		1	3	17	1	0
<0.0 00 0.0		1	10	28	19	0
V007 0.0		3	34	43	18	0
<0.0 00 0.0		3	18	14	4	0
MC 4 0 10		3	17	12	0	0

WIND SPEED (1)			
LCC - VGGY	0-3	4-11	12-31
<1.0 4 GR + 0	0	0	0
<0.4 GR + 0	0	2	1
VGGY +2	0	0	0
<1.0 4 GR +2	0	4	11
<2.0 4 GR +0	1	17	33
VGGY +0	2	32	57
>0.0 4 +0	1	7	8
ME > 10	0	8	5

		WIND SPEED (KNOTS)			
LEE - VDR		0-9	10-19	20-29	30-39
<1.0 & 0.0 < 0.2		0	0	0	0
<0.0 & 0.0 < 0		0	0	0	0
VDR > 0		0	0	0	0
<10 & 0.0 < 0		0	3	4	2
<0.0 & 0.0 < 0		0	7	10	3
VDR > 0		5	40	45	0
> 0.0 & 0.0		4	20	20	4
ME < 0 & 10		4	20	20	4

		WIND SPEED (KNOTS)			
LEE - VSBY		0-9	10-19	20-29	30-39
<1.5 NM	<5	0	0	1	0
<4 NM	<8	0	0	2	1
VSBY	<8	0	0	0	0
<10 NM	<12	0	1	4	0
<20 NM	<15	1	5	4	0
VSBY	20	2	40	50	6
>20 NM	>20	2	25	31	3
MS 4 x 10		2	24	28	3

		WIND SPEED (KNOTS)			
		0-9	10-19	20-29	30-39
CC - VSBY					
<1.0 0.00 -0.0		1	0	0	0
<0.5 0.00 -0.0		1	2	1	0
VSBY <2		0	0	0	0
<1.0 0.00 -0.0		3	5	0	1
<1.0 0.00 -0.0		5	17	27	5
VSBY <5		5	20	51	13
<5.0 0.00		0	10	10	0
MC < 10		0	10	15	5

23
WIND SPEED (KNOTS)

LCC - V087	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49
<1.5 & OR <1.5	0	0	0	0	0
<6.0 OR <6	0	0	1	1	0
V087 <2	0	0	0	0	0
<10 & OR <10	0	3	6	5	1
<20 & OR <20	1	9	17	9	1
V087 >2	5	30	44	16	2
>20 & >20	4	29	28	7	1
>40 & >40	4	18	24	7	0

		WIND SPEED (KNOTS)				
LCC - VDRY		0-9	10-19	20-29	30-39	40-49
<1.5 @ 0-5		0	0	0	0	0
<5 @ 0-2		0	1	0	1	0
VDRY <0		0	0	0	0	0
<10 @ 0-2		1	2	7	3	1
<30 @ 0-5		1	0	16	0	1
VDRY <5		6	31	43	18	3
>0 @ 5-6		6	20	23	7	1
MC < 10		4	10	29	8	1

	9-9	4-10	11-12
LCC - VSBY	0	0	0
<1.0 & GR <1.5	0	0	0
<0.5 & GR <2	0	1	1
VSBY >2	0	0	0
<1.0 & GR <2	0	2	7
<2.0 & GR <3	1	6	21
VSBY >3	3	91	49
>2.0 & >3	2	20	20
ME 4 > 10	2	17	10

		WIND SPEED (KNOTS)				
LCC - WGW		0-9	10-19	20-29	30-39	40-49
<1.0 & 0.0 <1.0		0	0	0	1	1
<0.5 & 0.0 <0.5		0	0	0	2	1
WGW <2		0	0	0	0	0
<10 & 0.0 <10		0	2	3	3	1
<20 & 0.0 <20		1	7	7	7	1
WGW 25		4	51	43	10	4
<30 & 0.0 <30		3	10	23	6	1
WGW 40-49		2	10	21	5	1

WIND SPEED (KNOTS)				
LOC - WIND	0 - 5	6 - 10	11 - 20	21 - 30
<1.0 & SW < 5	0	0	0	0
<6 & SW < 5	0	0	0	0
WIND < 5	0	0	0	0
<10 & SW < 5	0	5	10	5
<30 & SW < 5	0	5	20	10
WIND < 5	0	0	0	0
<30 & SW < 5	0	0	0	0
WIND < 5	0	0	0	0

WIND SPEED (KNOTS)				
LSC - VSBT	0-5	6-10	11-20	21-30
<1.0 4.0M +.0	0	0	0	0
<0.5 0M +2	0	0	0	0
VSBT <2	0	0	0	0
<10 4.0M +3	0	0	13	0
<00 4.0M +5	0	0	33	0
VSBT <6	0	27	67	7
<50 4.0M	0	20	27	2
MC > 10	0	20	20	7

32

**INSUFFICIENT
DATA**

	0-3	4-10	11-20	21-30	31-40
LCC - VSBY					
<1.0 A 00 -1.5	0	2	0	2	0
<0.5 A 00 -3	0	3	2	3	2
VSBY <2	0	2	0	2	0
<1.0 A 00 <2	0	0	12	12	3
<0.5 A 00 <2	0	0	16	17	5
VSBY <5	3	26	40	22	5
<0.5 A 00 <5	3	18	20	0	0
MC < 1.0	3	14	14	8	0

MIND SPEED (1)			
LCC - VSBY	0-5	6-10	11-21
<1.0 & GR <4.0	0	3	2
<0.5 & GR <2	0	3	3
VSBY <2	0	2	3
<1.0 & GR <2	0	5	6
<2.0 & GR <6	0	6	17
VSBY <2	2	14	33
>0.5 & >2	0	9	11
MC >10	0	2	6

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted.

VISIBILITY-WIND

SEPTEMBER

Visibility (V_{sky}) in nautical

(h) when low cloud amount

ceiling <1000 feet and or

ifferences of N_h <5 8

and Wind 11 21 kts

ditions LCC <300 ft.,

1							2							3							4							5						
WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)						
LCC	VSBY	0-3	4-10	11-21	22-33	≥34	LCC	VSBY	0-3	4-10	11-21	22-33	≥34	LCC	VSBY	0-3	4-10	11-21	22-33	≥34	LCC	VSBY	0-3	4-10	11-21	22-33	≥34	LCC	VSBY	0-3	4-10	11-21	22-33	≥34
<1	5 4 OR < 5	0	0	0	0	0	<1	5 4 OR < 5	0	+	+	0	0	<1	5 4 OR < 5	0	+	+	0	0	<1	5 4 OR < 5	0	0	2	0	0	<1	5 4 OR < 5	0	+	0	0	0
<6	4 OR < 2	0	0	1	0	0	<6	4 OR < 2	0	1	1	0	0	<6	4 OR < 2	+	3	2	0	0	<6	4 OR < 2	1	4	2	0	0	<6	4 OR < 2	0	2	1	0	0
VSBY	< 2	0	0	0	0	0	VSBY	< 2	0	1	0	0	0	VSBY	< 2	+	1	+	0	0	VSBY	< 2	0	1	0	0	0	VSBY	< 2	0	+	+	0	0
<10	4 OR < 2	0	6	10	0	0	<10	4 OR < 2	1	5	2	1	0	<10	4 OR < 2	1	7	1	1	0	<10	4 OR < 2	1	6	12	1	0	<10	4 OR < 2	1	11	5	0	0
<20	4 OR < 5	2	11	14	0	0	<20	4 OR < 5	2	10	7	2	+	<20	4 OR < 5	1	13	17	1	0	<20	4 OR < 5	2	14	24	2	0	<20	4 OR < 5	1	25	15	0	0
VSBY	≥ 5	14	52	32	1	0	VSBY	≥ 5	9	47	37	4	+	VSBY	≥ 5	3	35	56	1	0	VSBY	≥ 5	3	41	52	2	0	VSBY	≥ 5	3	58	36	1	0
≥50	4 ≥ 5	11	36	18	1	0	≥50	4 ≥ 5	6	37	28	3	0	≥50	4 ≥ 5	2	21	34	1	0	≥50	4 ≥ 5	2	23	24	0	0	≥50	4 ≥ 5	1	27	16	0	0
NC 4 ≥ 10		11	34	15	1	0	NC 4 ≥ 10		6	36	27	2	0	NC 4 ≥ 10		2	19	33	1	0	NC 4 ≥ 10		1	22	23	0	0	NC 4 ≥ 10		1	24	14	+	0
177							334							276							190							633						

6							7							8							9							10						
WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)						
LCC - VSBY	0-3	4-10	11-21	22-33	a34		LCC - VSBY	0-3	4-10	11-21	22-33	a34		LCC - VSBY	0-3	4-10	11-21	22-33	a34		LCC - VSBY	0-3	4-10	11-21	22-33	a34		LCC - VSBY	0-3	4-10	11-21	22-33	a34	
<1 5 4 OR < 5	0	+	+	+	0		<1 5 4 OR < 5	0	0	0	0	0		<1 5 4 OR < 5	0	0	0	0	0		<1 5 4 OR < 5	0	0	0	0	0		<1 5 4 OR < 5	0	+	0	0	0	
<6 4 OR < 2	+	3	2	+	0		<6 4 OR < 2	0	0	0	0	0		<6 4 OR < 2	0	+	+	0	0		<6 4 OR < 2	0	+	1	0	0		<6 4 OR < 2	0	2	1	0	0	
VSBY < 2	+	+	1	0	0		VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	+	0	0		VSBY < 2	0	0	0	0	0	
<10 4 OR < 2	2	14	7	+	0		<10 4 OR < 2	0	0	1	0	0		<10 4 OR < 2	0	1	2	0	0		<10 4 OR < 2	0	2	14	1	0		<10 4 OR < 2	+	14	6	0	0	
<20 4 OR < 5	4	29	14	+	0		<20 4 OR < 5	0	3	5	0	0		<20 4 OR < 5	0	4	6	+	0		<20 4 OR < 5	+	6	34	3	0		<20 4 OR < 5	1	32	17	+	0	
VSBY ≥ 5	10	60	24	+	0		VSBY ≥ 5	1	33	63	1	0		VSBY ≥ 5	0	27	70	2	0		VSBY ≥ 5	+	15	78	5	0		VSBY ≥ 5	1	64	32	1	0	
≥ 50 4 ≥ 5	5	29	8	0	0		≥ 50 4 ≥ 5	1	30	57	1	0		≥ 50 4 ≥ 5	0	23	64	2	0		≥ 50 4 ≥ 5	+	5	28	1	0		≥ 50 4 ≥ 5	+	18	9	+	0	
NC 4 ≥ 10	5	27	7	0	0		NC 4 ≥ 10	1	27	57	1	0		NC 4 ≥ 10	0	23	61	1	0		NC 4 ≥ 10	+	4	25	1	0		NC 4 ≥ 10	+	16	8	+	0	
719							145							540							784							973						

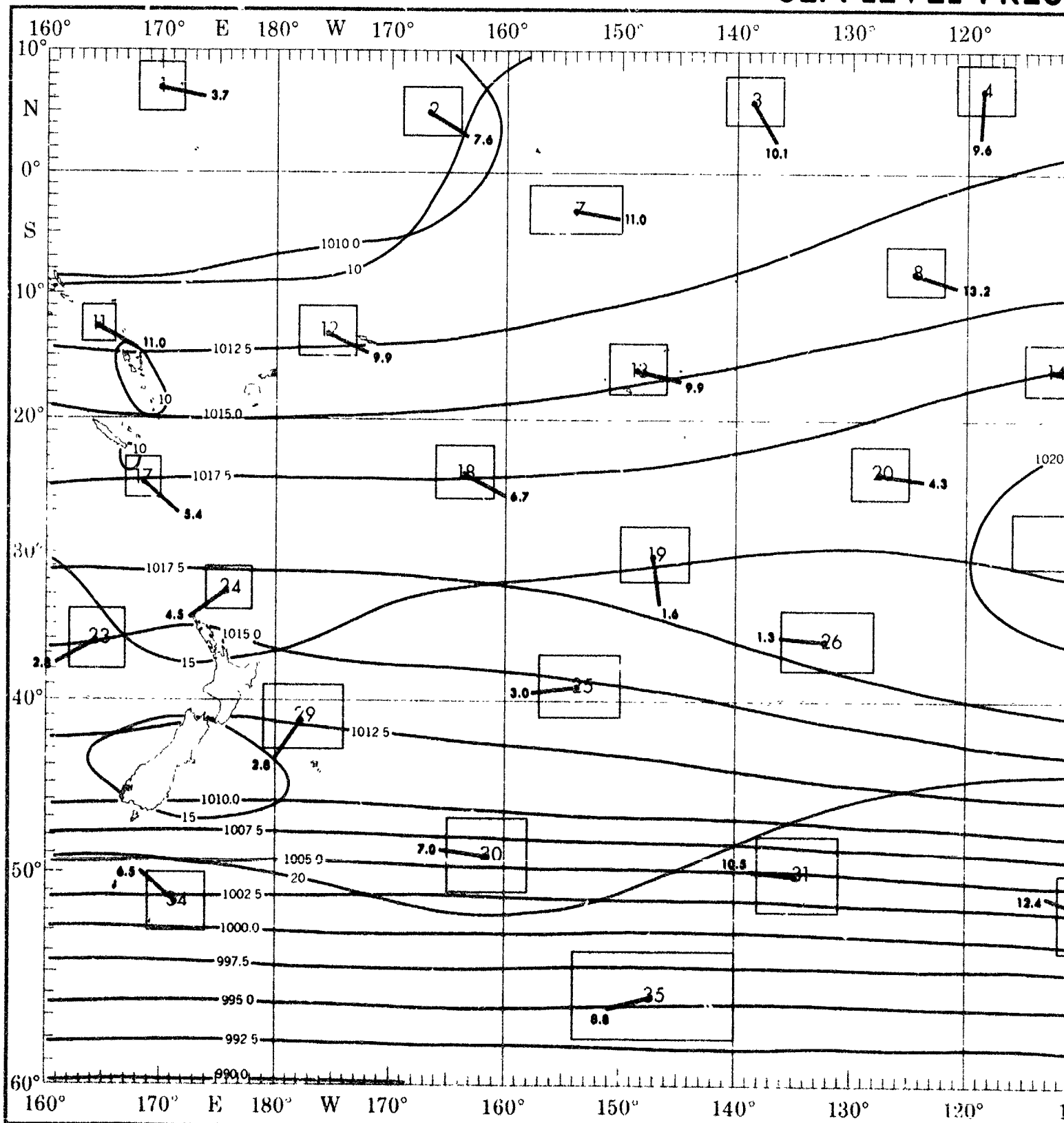
15							16							17							18							19						
WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)							WIND SPEED (KNOTS)						
LCC - VSBY	0-3	4-10	11-21	22-33	34		LCC - VSBY	0-3	4-10	11-21	22-33	34		LCC - VSBY	0-3	4-10	11-21	22-33	34		LCC - VSBY	0-3	4-10	11-21	22-33	34		LCC - VSBY	0-3	4-10	11-21	22-33	34	
<1.5 4 OR < 5	0	0	0	0	0		<1.5 4 OR < 5	0	0	0	0	0		<1.5 4 OR < 5	0	0	0	0	0		<1.5 4 OR < 5	0	0	0	0	0		<1.5 4 OR < 5	0	0	0	0	0	
<6 4 OR < 2	0	0	0	0	0		<6 4 OR < 2	0	2	1	0	0		<6 4 OR < 2	0	1	1	1	0		<6 4 OR < 2	0	1	2	1	0		<6 4 OR < 2	0	1	2	0	0	
VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	0	0	0		VSBY < 2	0	0	0	0	0	
<10 4 OR < 2	0	1	3	17	1		<10 4 OR < 2	0	4	11	2	0		<10 4 OR < 2	1	2	6	2	0		<10 4 OR < 2	0	2	6	3	0		<10 4 OR < 2	0	4	8	3	1	
<20 4 OR < 5	1	10	25	13	0		<20 4 OR < 5	1	17	33	4	0		<20 4 OR < 5	1	8	12	3	0		<20 4 OR < 5	0	6	19	5	0		<20 4 OR < 5	0	9	13	9	2	
VSBY ≥ 5	3	34	43	18	0		VSBY ≥ 5	2	32	57	10	0		VSBY ≥ 5	6	41	42	10	1		VSBY ≥ 5	2	31	51	12	0		VSBY ≥ 5	4	32	44	13	2	
≥ 50 4 ≥ 5	3	18	14	4	0		≥ 50 4 ≥ 5	1	7	6	2	0		≥ 50 4 ≥ 5	4	30	25	6	1		≥ 50 4 ≥ 5	1	22	28	5	0		≥ 50 4 ≥ 5	3	20	25	5	0	
NC 4 ≥ 10	3	17	12	4	0		NC 4 ≥ 10	0	5	5	1	0		NC 4 ≥ 10	3	27	25	6	1		NC 4 ≥ 10	1	21	27	5	0		NC 4 ≥ 10	3	19	22	4	0	
118							132							268							350							648						

24										25										26										27										28									
WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)									
LCC - VSBY	0-3	4-10	11-21	22-33	≥34	LCC - VSBY	0-3	4-10	11-21	22-33	≥34	LCC - VSBY	0-3	4-10	11-21	22-33	≥34	LCC - VSBY	0-3	4-10	11-21	22-33	≥34	LCC - VSBY	0-3	4-10	11-21	22-33	≥34																				
<1.5 4 OR <1.5	0	0	0	0	0	<1.5 4 OR <1.5	0	0	0	1	0	<1.5 4 OR <1.5	0	0	0	0	0	<1.5 4 OR <1.5	0	0	0	0	0	<1.5 4 OR <1.5	0	0	5	0	0																				
<6 4 OR <2	0	1	0	1	0	<6 4 OR <2	0	1	1	1	0	<6 4 OR <2	0	2	1	0	2	<6 4 OR <2	0	2	1	0	2	<6 4 OR <2	0	10	5	0	0																				
VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	5	0	0	0																				
<10 4 OR <2	1	2	7	3	1	<10 4 OR <2	0	2	7	5	1	<10 4 OR <2	0	6	8	7	2	<10 4 OR <2	5	10	19	0	0	<10 4 OR <2	0	7	0	0	0																				
<20 4 OR <5	1	9	16	8	1	<20 4 OR <5	1	6	21	9	2	<20 4 OR <5	0	15	21	9	2	<20 4 OR <5	10	19	24	0	5	<20 4 OR <5	0	7	0	0	0																				
VSBY ≥5	6	31	43	16	3	VSBY ≥5	3	31	46	15	3	VSBY ≥5	5	32	46	13	0	VSBY ≥5	14	38	38	0	5	VSBY ≥5	0	47	33	7	7																				
≥50 4 ≥5	5	20	23	7	1	≥50 4 ≥5	2	20	20	5	1	≥50 4 ≥5	5	16	21	2	0	≥50 4 ≥5	5	14	10	0	0	≥50 4 ≥5	0	13	20	7	7																				
NC 4 ≥10	4	18	23	6	1	NC 4 ≥10	2	17	19	4	1	NC 4 ≥10	5	16	17	2	0	NC 4 ≥10	5	14	10	0	0	NC 4 ≥10	0	13	20	7	7																				
241					202					129					21																																		

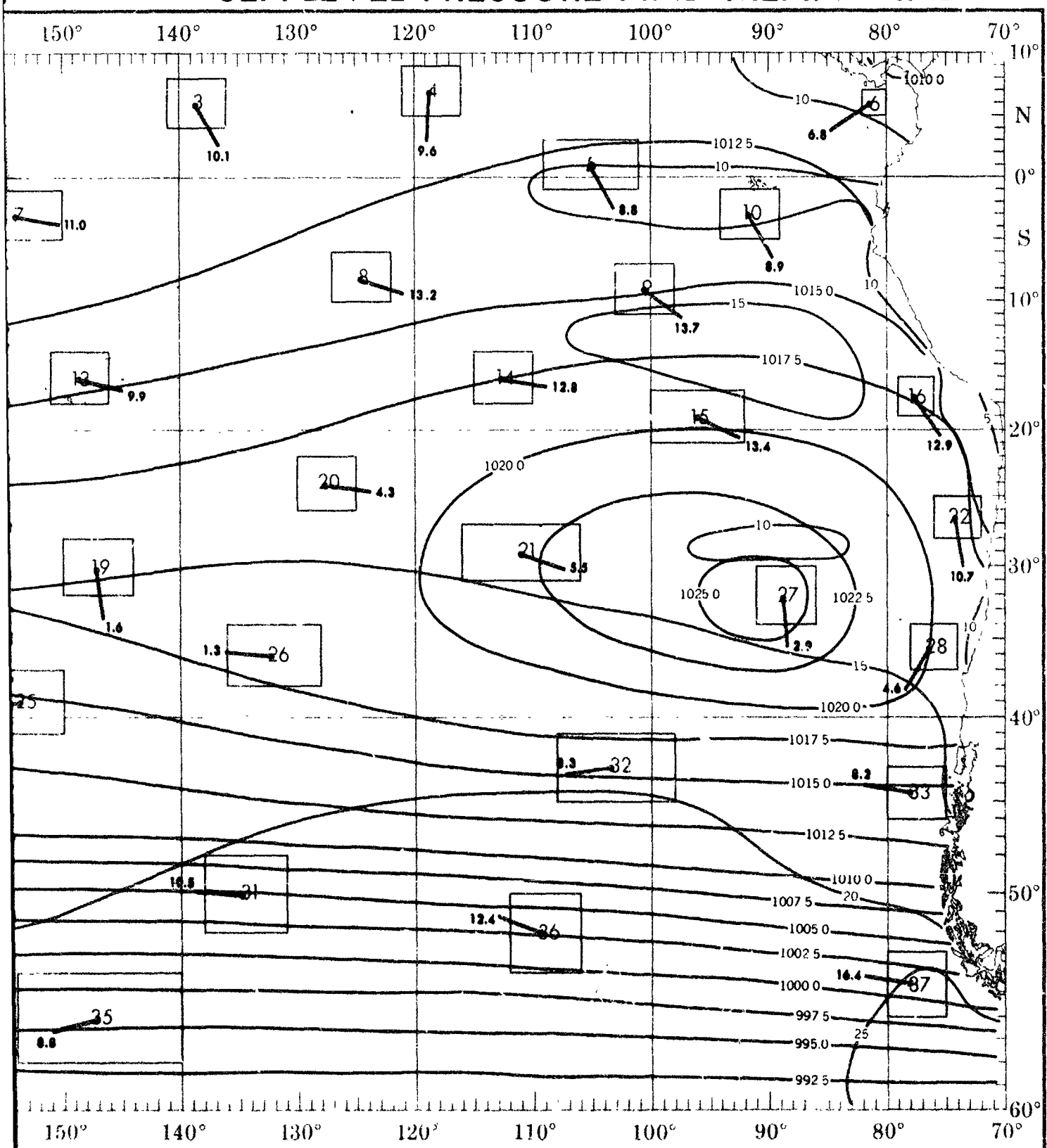
33										34										35										36										37									
WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)										WIND SPEED (KNOTS)									
LCC - VSBY	0-3	4-10	11-21	22-34	≥34	LCC - VSBY	0-3	4-10	11-21	22-34	≥34	LCC - VSBY	0-3	4-10	11-21	22-34	≥34	LCC - VSBY	0-3	4-10	11-21	22-34	≥34	LCC - VSBY	0-3	4-10	11-21	22-34	≥34																				
<1 5 4 OR < 5	0	2	0	2	0	<1 5 4 OR < 5	0	3	2	2	2	<1 5 4 OR < 5	0	3	2	2	2	<1 5 4 OR < 5	0	3	2	2	2	<1 5 4 OR < 5	0	3	2	2	2																				
<8 4 OR < 2	0	3	2	3	2	<8 4 OR < 2	0	3	3	2	2	<8 4 OR < 2	0	3	3	2	2	<8 4 OR < 2	0	2	3	2	0	<8 4 OR < 2	0	2	3	2	0																				
VSBY < 2	0	2	0	2	0	VSBY < 2	0	2	3	2	0	VSBY < 2	0	2	3	2	0	VSBY < 2	0	2	3	2	0	VSBY < 2	0	2	3	2	0																				
<10 4 OR < 2	0	6	12	12	3	<10 4 OR < 2	0	5	6	6	2	<10 4 OR < 2	0	5	6	6	2	<10 4 OR < 2	0	5	6	6	2	<10 4 OR < 2	0	5	6	6	2																				
<20 4 OR < 5	0	9	15	17	5	<20 4 OR < 5	0	6	17	23	2	<20 4 OR < 5	0	6	17	23	2	<20 4 OR < 5	0	6	17	23	2	<20 4 OR < 5	0	6	17	23	2																				
VSBY < 5	3	25	40	22	5	VSBY < 5	2	14	33	41	0	VSBY < 5	2	14	33	41	0	VSBY < 5	2	14	33	41	0	VSBY < 5	2	14	33	41	0																				
<50 4 < 5	3	15	20	6	0	<50 4 < 5	3	9	11	9	0	<50 4 < 5	3	9	11	9	0	<50 4 < 5	3	9	11	9	0	<50 4 < 5	3	9	11	9	0																				
NC 4 < 10	3	14	14	6	0	NC 4 < 10	0	2	6	3	0	NC 4 < 10	0	2	6	3	0	NC 4 < 10	0	2	6	3	0	NC 4 < 10	0	2	6	3	0																				

SEPTEMBER

SEA LEVEL PRES

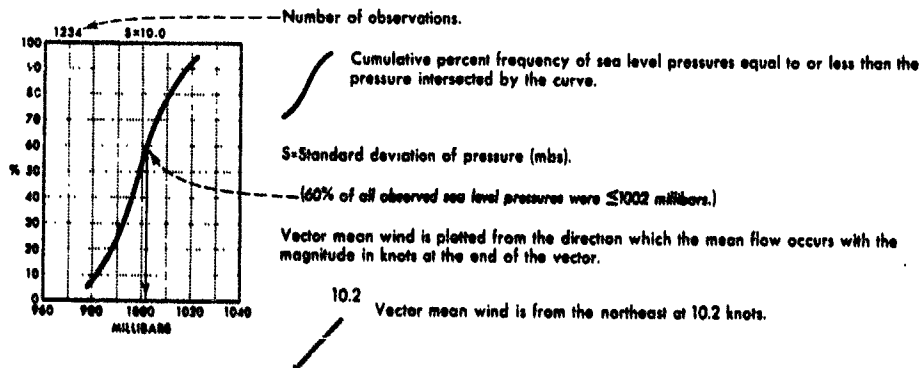


SEA LEVEL PRESSURE AND MEAN WIND



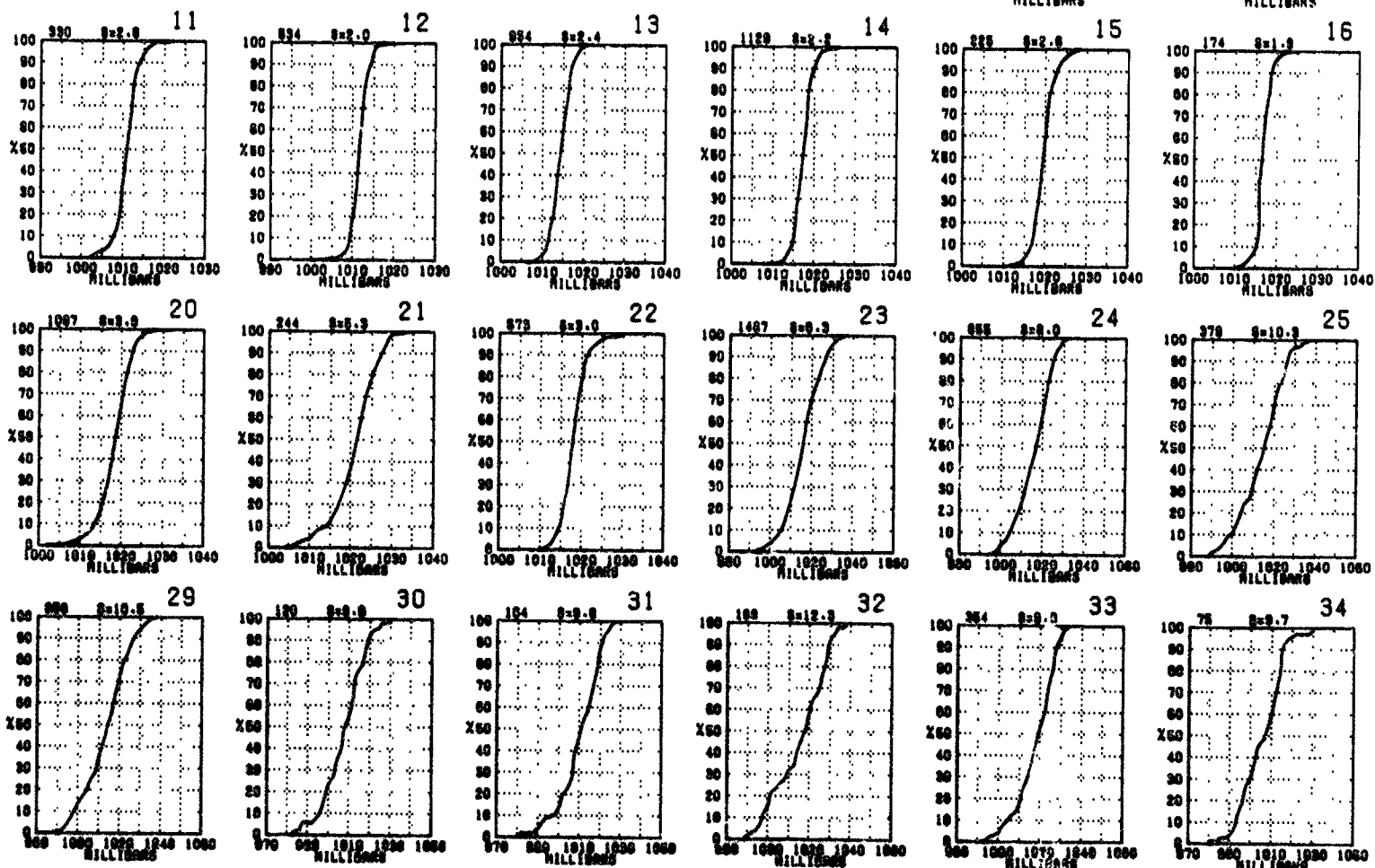
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



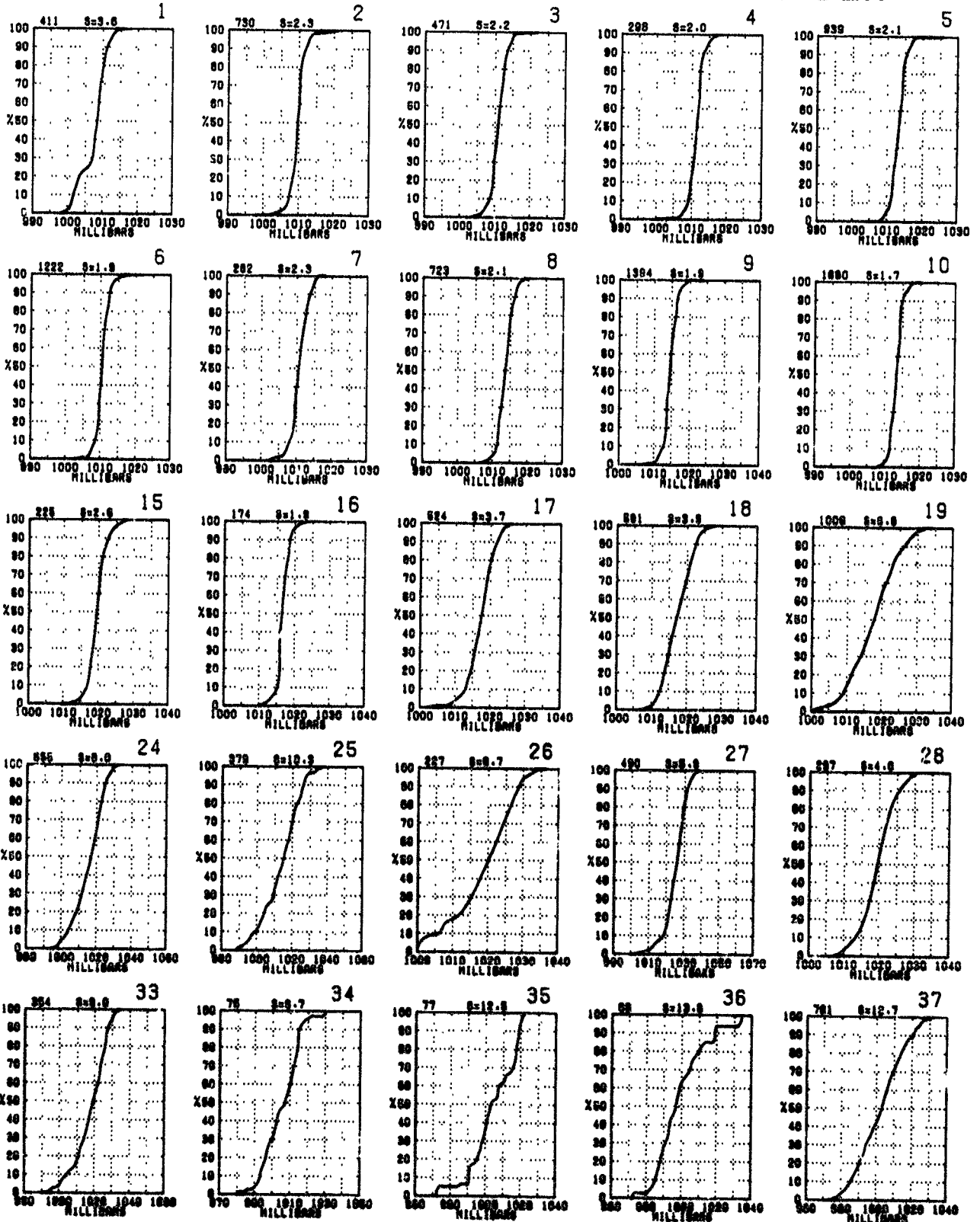
BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mb).



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when necessary.

SEPTEMBER



ures equal to or less than the

mean flow occurs with the

2 knots.

3

1040

2

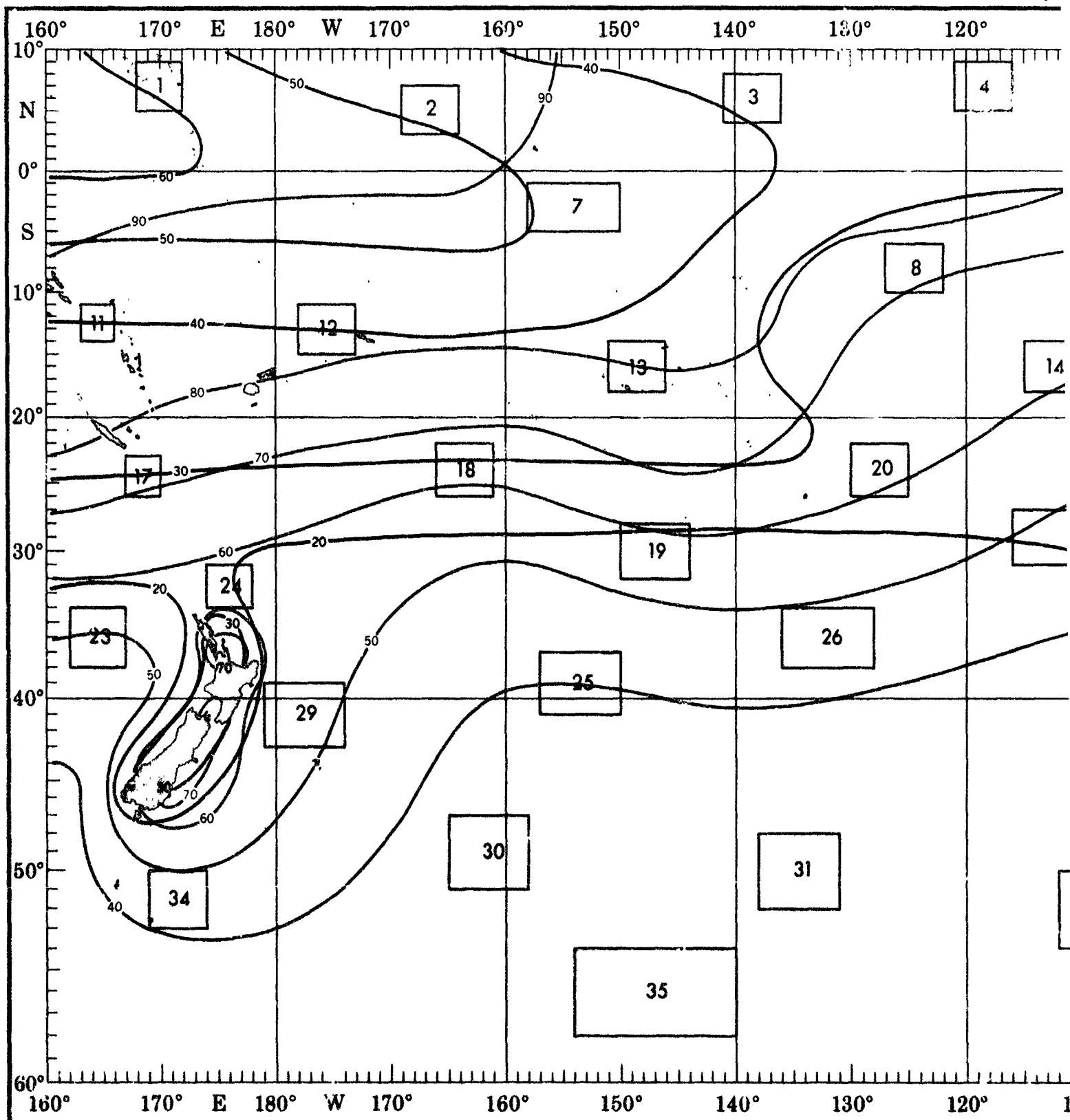
1040

1

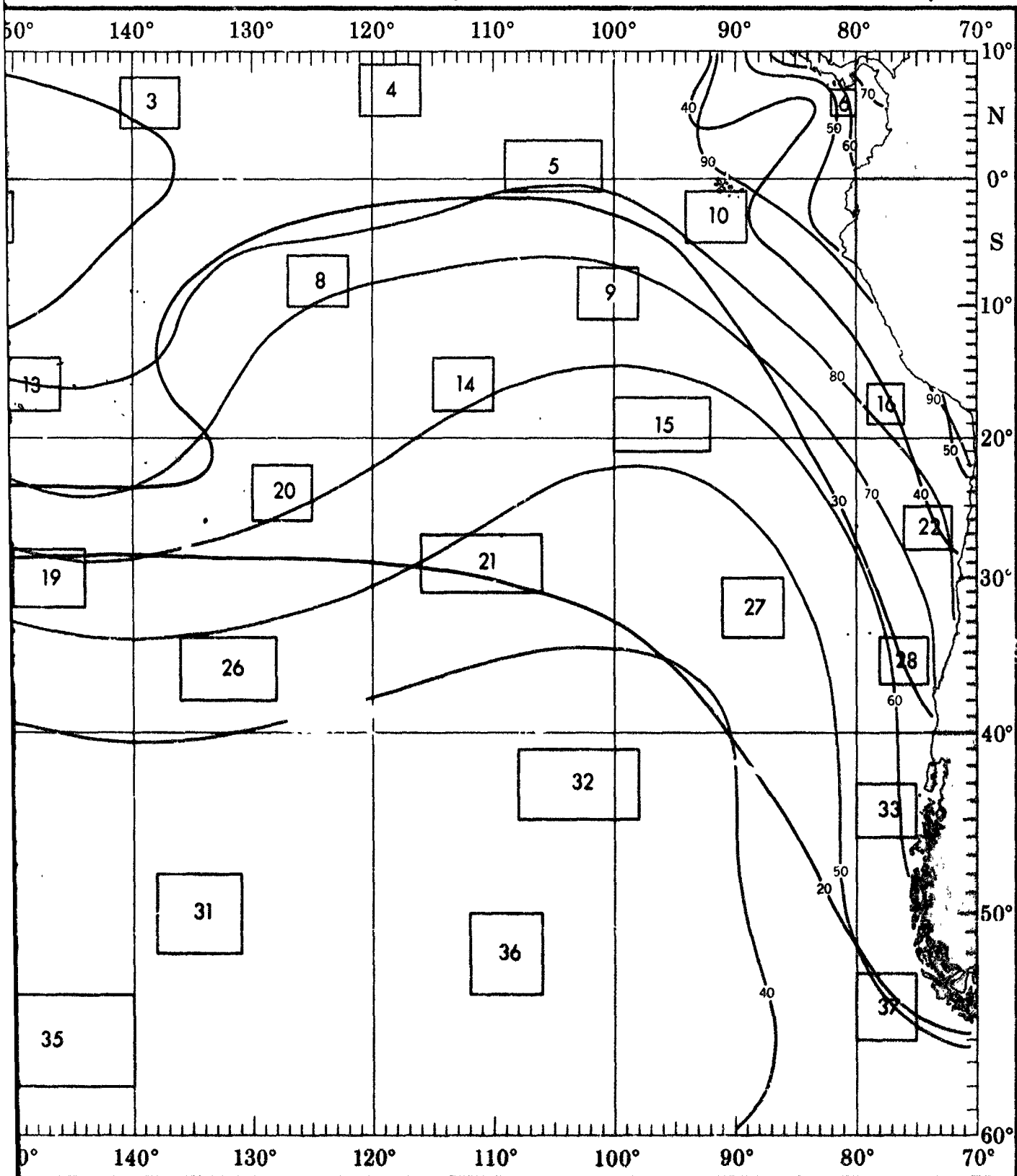
at the objective compilation of available data for specified areas without regard to suspected biases.
 analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

SEPTEMBER

WAVES (-)



WAVES (<1.5 AND <2.5 METERS)

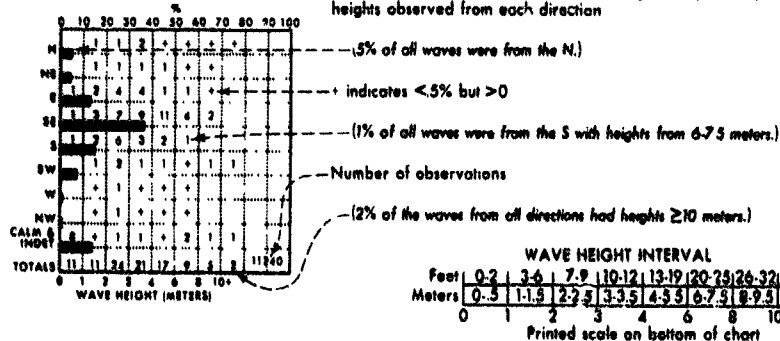


WAVE DIRECTION AND HEIGHT

Wave direction and height

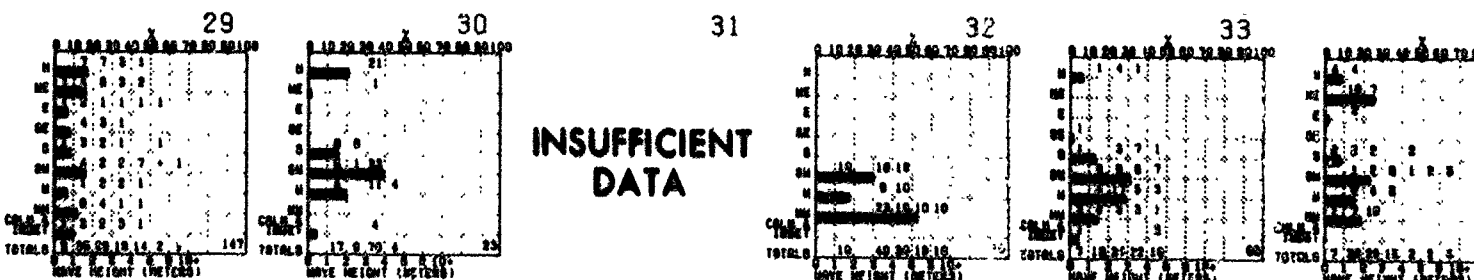
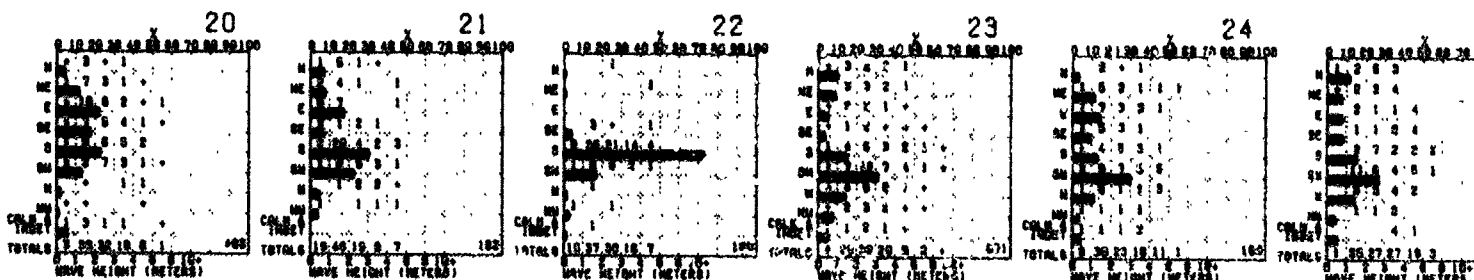
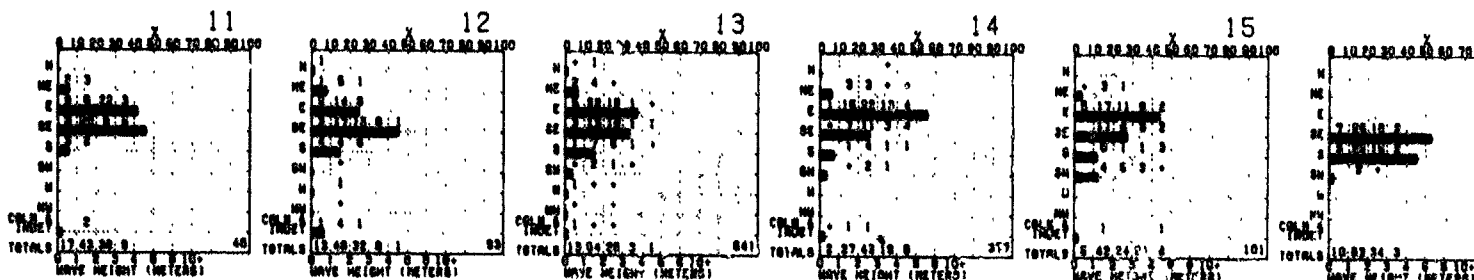
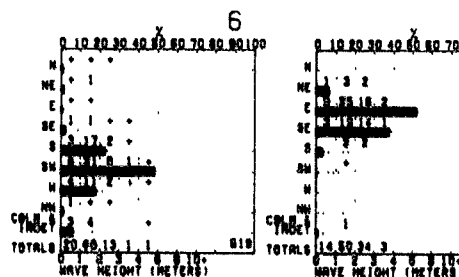
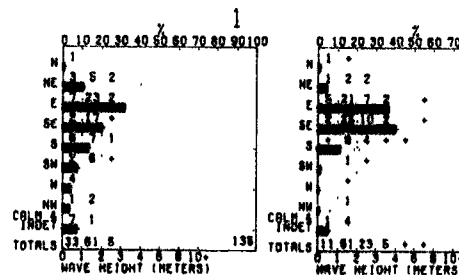
Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE - Percent frequency of wave height < 1.5 meters (5 feet)

RED LINE - Percent frequency of wave height < 2.5 meters (8 feet)



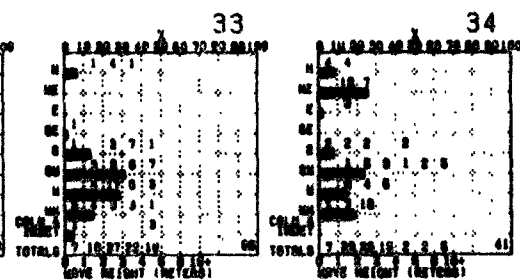
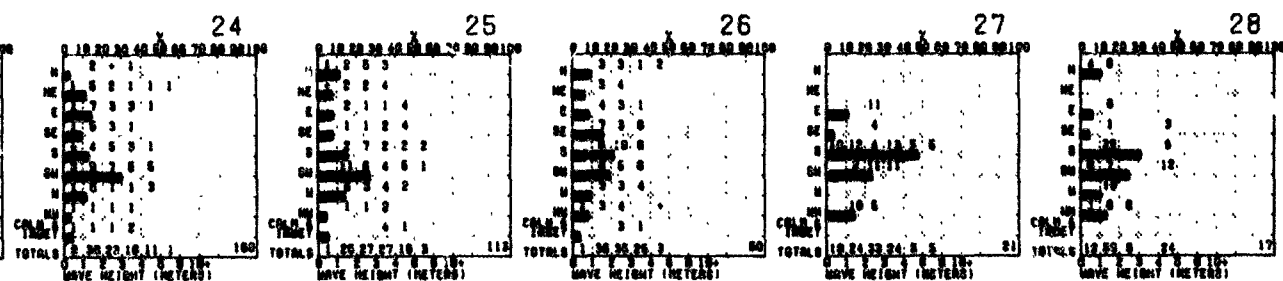
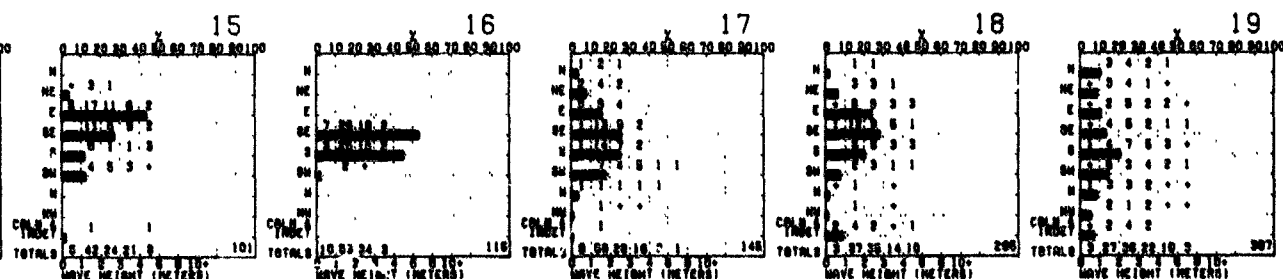
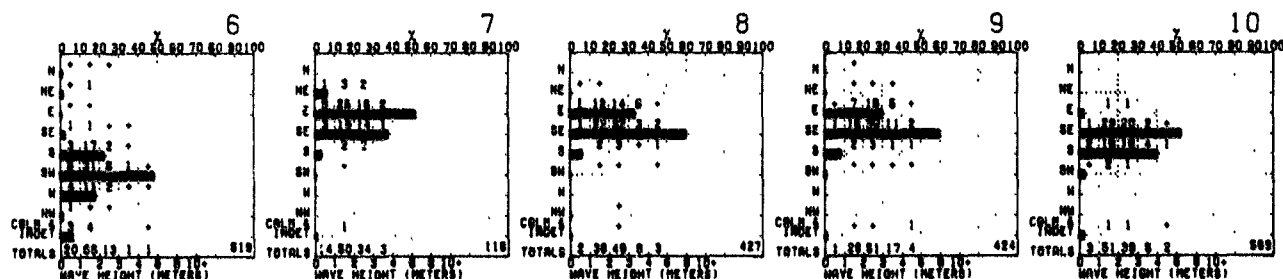
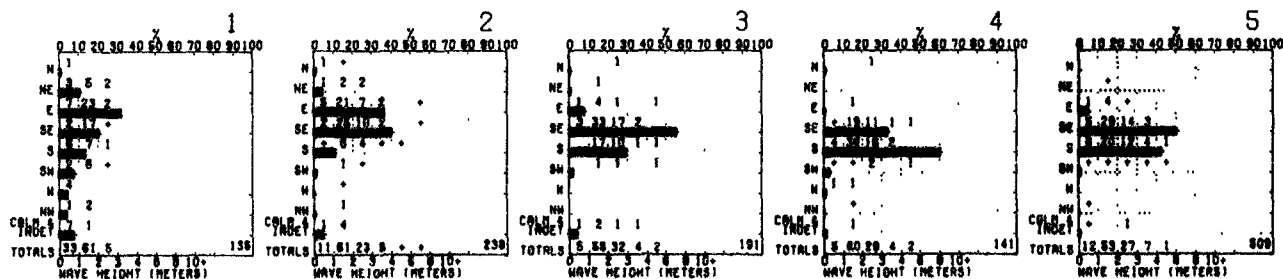
INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without r. The isopleth analyses (opposite page) are based on all available data subjectively adjusted

HEIGHT

SEPTEMBER

frequency of waves from
percent frequency of wave

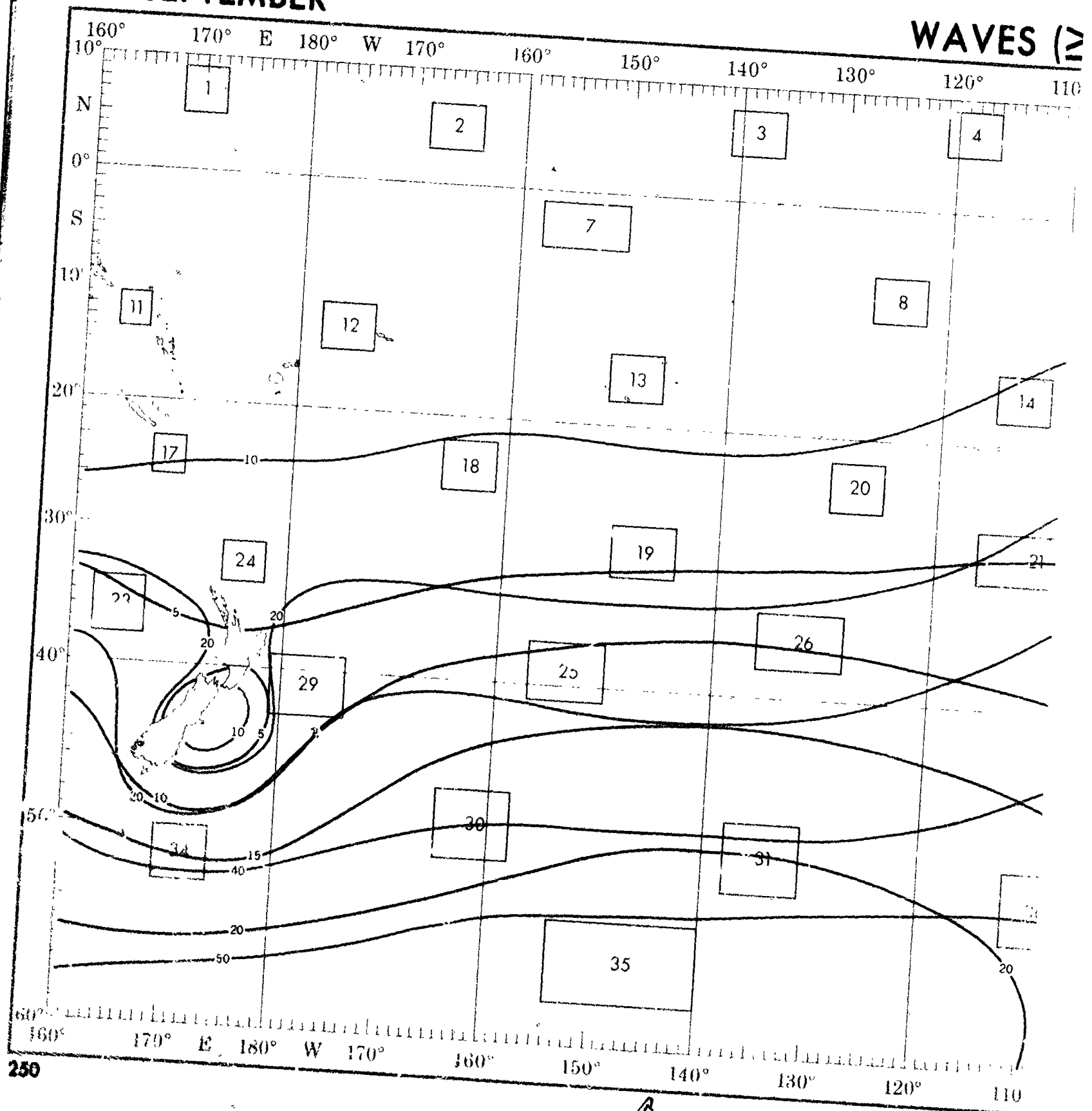


INSUFFICIENT DATA INSUFFICIENT DATA INSUFFICIENT DATA

objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

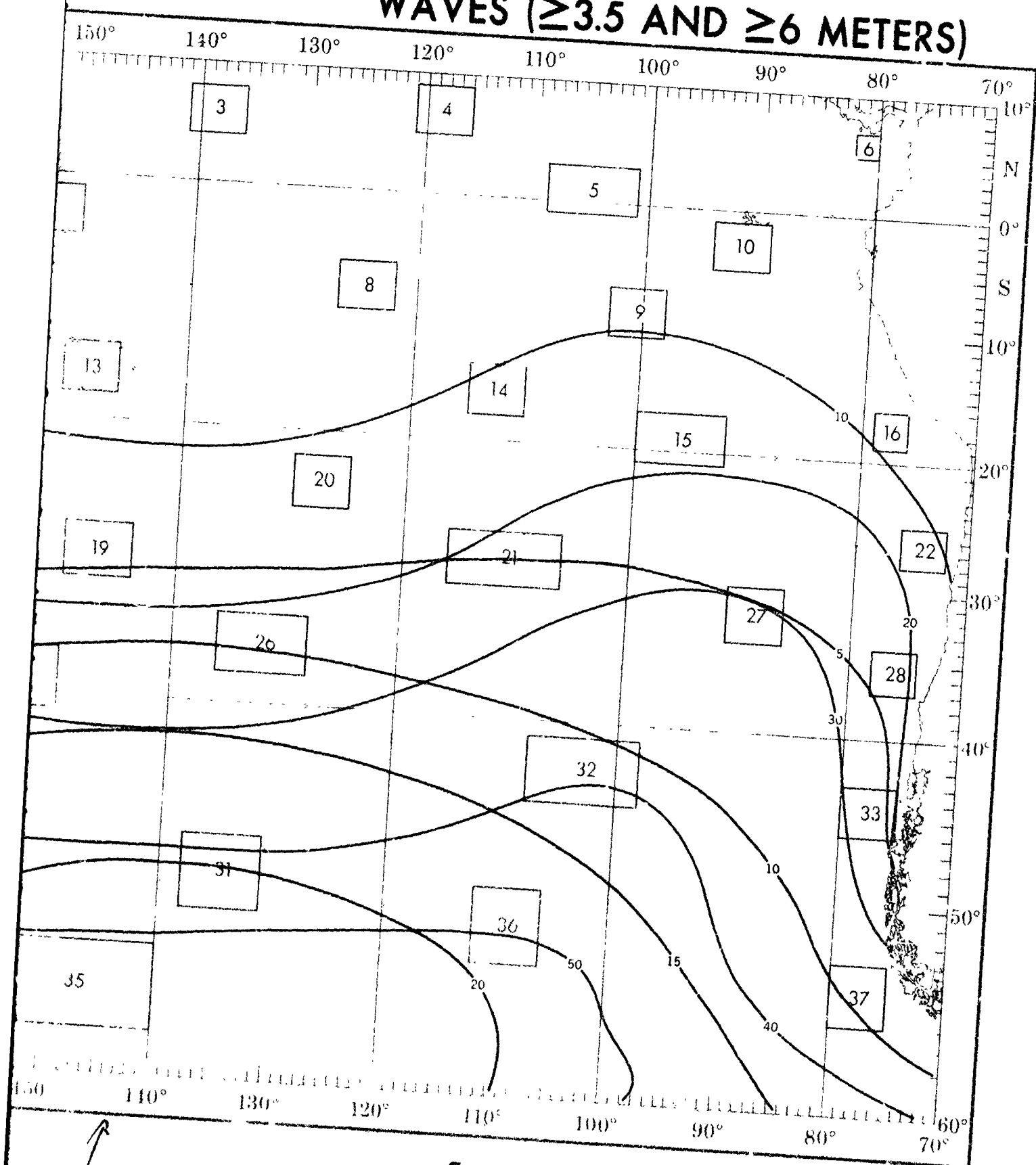
SEPTEMBER

WAVES (\geq)



f

WAVES (≥ 3.5 AND ≥ 6 METERS)



WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

PERIOD (in SECS)	0-6	6-9	9-10	10-11	11-12	12-13	13-14
0-2	1	1	1	1	1	1	1
2-3	1	1	1	1	1	1	1
3-4	1	1	1	1	1	1	1
4-5	1	1	1	1	1	1	1
5-6	1	1	1	1	1	1	1
6-7	1	1	1	1	1	1	1
7-8	1	1	1	1	1	1	1
8-9	1	1	1	1	1	1	1
9-10	1	1	1	1	1	1	1

-(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

indicates $<.5\%$ but >0

- Number of observations

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

HEIGHT (INCHES)	PERIOD (SECONDS)							IN
	<6	6-7	8-9	10-11	12-13	>13		
0-5	23	1	2	1	0	0		
1-1.5	29	10	4	4	2	0		
2-2.5	1	4	1	0	0	0		
3-3.5	0	0	0	0	0	0		
4-4.5	0	0	0	0	0	0		
5-5.5	0	0	0	0	0	0		
6-6.5	0	0	0	0	0	0		
≥10	0	0	0	0	0	0		

WEIGHT (KGS)	PERIOD (SECS)				
	<6	6-7	8-9	10-11	12-19
0-0.5	7	3	1	0	0
1-1.5	28	21	7	1	1
2-2.5	5	8	8	1	+
3-3.5	+	2	1	1	0
4-4.5	0	0	0	+	0
5-5.5	0	0	0	0	0
6-6.5	0	0	0	0	0
all	0	3	0	0	0

HEIGHT (INCH)	PERIOD (SECONDS)							
	0-6	6-7	7-8	8-10	10-12	12-15	15-18	18-20
0-0.9	16	2	1	+	0	0		
1-1.9	20	20	7	1	1	1		
2-2.9	4	4	3	1	+	+		
3-3.9		0	+	+	+	0		
4-4.9	+	+	+	0	0	0		
5-5.9	C	0	0	0	0	0		
6-6.9	0	0	0	0	0	0		
7-7.9	0	0	0	0	0	0		
8-8.9	0	0	0	0	0	0		
9-9.9	0	0	0	0	0	0		
10-10.9	0	0	0	0	0	0		
11-11.9	0	0	0	0	0	0		
12-12.9	0	0	0	0	0	0		
13-13.9	0	0	0	0	0	0		
14-14.9	0	0	0	0	0	0		
15-15.9	0	0	0	0	0	0		
16-16.9	0	0	0	0	0	0		
17-17.9	0	0	0	0	0	0		
18-18.9	0	0	0	0	0	0		
19-19.9	0	0	0	0	0	0		
20-20.9	0	0	0	0	0	0		
21-21.9	0	0	0	0	0	0		
22-22.9	0	0	0	0	0	0		
23-23.9	0	0	0	0	0	0		
24-24.9	0	0	0	0	0	0		
25-25.9	0	0	0	0	0	0		
26-26.9	0	0	0	0	0	0		
27-27.9	0	0	0	0	0	0		
28-28.9	0	0	0	0	0	0		
29-29.9	0	0	0	0	0	0		
30-30.9	0	0	0	0	0	0		
31-31.9	0	0	0	0	0	0		
32-32.9	0	0	0	0	0	0		
33-33.9	0	0	0	0	0	0		
34-34.9	0	0	0	0	0	0		
35-35.9	0	0	0	0	0	0		
36-36.9	0	0	0	0	0	0		
37-37.9	0	0	0	0	0	0		
38-38.9	0	0	0	0	0	0		
39-39.9	0	0	0	0	0	0		
40-40.9	0	0	0	0	0	0		
41-41.9	0	0	0	0	0	0		
42-42.9	0	0	0	0	0	0		
43-43.9	0	0	0	0	0	0		
44-44.9	0	0	0	0	0	0		
45-45.9	0	0	0	0	0	0		
46-46.9	0	0	0	0	0	0		
47-47.9	0	0	0	0	0	0		
48-48.9	0	0	0	0	0	0		
49-49.9	0	0	0	0	0	0		
50-50.9	0	0	0	0	0	0		
51-51.9	0	0	0	0	0	0		
52-52.9	0	0	0	0	0	0		
53-53.9	0	0	0	0	0	0		
54-54.9	0	0	0	0	0	0		
55-55.9	0	0	0	0	0	0		
56-56.9	0	0	0	0	0	0		
57-57.9	0	0	0	0	0	0		
58-58.9	0	0	0	0	0	0		
59-59.9	0	0	0	0	0	0		
60-60.9	0	0	0	0	0	0		
61-61.9	0	0	0	0	0	0		
62-62.9	0	0	0	0	0	0		
63-63.9	0	0	0	0	0	0		
64-64.9	0	0	0	0	0	0		
65-65.9	0	0	0	0	0	0		
66-66.9	0	0	0	0	0	0		
67-67.9	0	0	0	0	0	0		
68-68.9	0	0	0	0	0	0		
69-69.9	0	0	0	0	0	0		
70-70.9	0	0	0	0	0	0		
71-71.9	0	0	0	0	0	0		
72-72.9	0	0	0	0	0	0		
73-73.9	0	0	0	0	0	0		
74-74.9	0	0	0	0	0	0		
75-75.9	0	0	0	0	0	0		
76-76.9	0	0	0	0	0	0		
77-77.9	0	0	0	0	0	0		
78-78.9	0	0	0	0	0	0		
79-79.9	0	0	0	0	0	0		
80-80.9	0	0	0	0	0	0		
81-81.9	0	0	0	0	0	0		
82-82.9	0	0	0	0	0	0		
83-83.9	0	0	0	0	0	0		
84-84.9	0	0	0	0	0	0		
85-85.9	0	0	0	0	0	0		
86-86.9	0	0	0	0	0	0		
87-87.9	0	0	0	0	0	0		
88-88.9	0	0	0	0	0	0		
89-89.9	0	0	0	0	0	0		
90-90.9	0	0	0	0	0	0		
91-91.9	0	0	0	0	0	0		
92-92.9	0	0	0	0	0	0		
93-93.9	0	0	0	0	0	0		
94-94.9	0	0	0	0	0	0		
95-95.9	0	0	0	0	0	0		
96-96.9	0	0	0	0	0	0		
97-97.9	0	0	0	0	0	0		
98-98.9	0	0	0	0	0	0		
99-99.9	0	0	0	0	0	0		
100-100.9	0	0	0	0	0	0		
101-101.9	0	0	0	0	0	0		
102-102.9	0	0	0	0	0	0		
103-103.9	0	0	0	0	0	0		
104-104.9	0	0	0	0	0	0		
105-105.9	0	0	0	0	0	0		
106-106.9	0	0	0	0	0	0		
107-107.9	0	0	0	0	0	0		
108-108.9	0	0	0	0	0	0		
109-109.9	0	0	0	0	0	0		
110-110.9	0	0	0	0	0	0		
111-111.9	0	0	0	0	0	0		
112-112.9	0	0	0	0	0	0		
113-113.9	0	0	0	0	0	0		
114-114.9	0	0	0	0	0	0		
115-115.9	0	0	0	0	0	0		
116-116.9	0	0	0	0	0	0		
117-117.9	0	0	0	0	0	0		
118-118.9	0	0	0	0	0	0		
119-119.9	0	0	0	0	0	0		
120-120.9	0	0	0	0	0	0		
121-121.9	0	0	0	0	0	0		
122-122.9	0	0	0	0	0	0		
123-123.9	0	0	0	0	0	0		
124-124.9	0	0	0	0	0	0		
125-125.9	0	0	0	0	0	0		
126-126.9	0	0	0	0	0	0		
127-127.9	0	0	0	0	0	0		
128-128.9	0	0	0	0	0	0		
129-129.9	0	0	0	0	0	0		
130-130.9	0	0	0	0	0	0		
131-131.9	0	0	0	0	0	0		
132-132.9	0	0	0	0	0	0		
133-133.9	0	0	0	0	0	0		
134-134.9	0	0	0	0	0	0		
135-135.9	0	0	0	0	0	0		
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141-141.9	0	0	0	0	0	0		
142-142.9	0	0	0	0	0	0		
143-143.9	0	0	0	0	0	0		
144-144.9	0	0	0	0	0	0		
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148-148.9	0	0	0	0	0	0		
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150-150.9	0	0	0	0	0	0		
151-151.9	0	0	0	0	0	0		
152-152.9	0	0	0	0	0	0		
153-153.9	0	0	0	0	0	0		
154-154.9	0	0	0	0	0	0		
155-155.9	0	0	0	0	0	0		
156-156.9	0	0	0	0	0	0		
157-157.9	0	0	0	0	0	0		
158-158.9	0	0	0	0	0	0		
159-159.9	0	0	0	0	0	0		
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162-162.9	0	0	0	0	0	0		
163-163.9	0	0	0	0	0	0		
164-164.9	0	0	0	0	0	0		
165-165.9	0	0	0	0	0	0		
166-166.9	0	0	0	0	0	0		
167-167.9	0	0	0	0	0	0		
168-168.9	0	0	0	0	0	0		
169-169.9	0	0	0	0	0	0		
170-170.9	0	0	0	0	0	0		
171-171.9	0	0	0	0	0	0		
172-172.9	0	0	0	0	0	0		
173-173.9	0	0	0	0	0	0		
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196-196.9	0	0	0	0	0	0		
197-197.9	0	0	0	0	0	0		
198-198.9	0	0	0	0	0	0		
199-199.9	0	0	0	0	0	0		
200-200.9	0	0	0	0	0	0		
201-201.9	0	0	0	0				

HEIGHT (INCH)	PERIOD (SECS)				
	0-5	6-9	10-14	15-19	20-24
0-5	8	0	1	0	0
6-10	20	15	5	0	0
11-15	10	18	4	3	0
16-20	0	1	2	0	0
21-25	0	0	0	0	0
26-30	0	0	0	0	0
31-35	0	0	0	0	0
TOTAL	38	24	12	3	0

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE : Percent frequency of wave height ≥ 6 meters (20 feet)

PERIOD (SECONDS)	PERIOD (SECONDS)						
	0-1	1-2	2-3	3-4	4-5	5-6	6-7
0-1	0	4	0	0	0	0	10
1-2	10	10	4	0	0	0	0
2-3	12	10	0	0	0	0	0
3-4	4	4	0	0	0	0	0
4-5	0	0	0	0	0	0	0
5-6	0	0	0	0	0	0	0
6-7	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0

[illegible][illegible]

PERIOD (SECONDS)	PERIOD (SECONDS)					
	0-5	5-10	10-15	15-20	20-25	25-30
0-5	1	0	0	0	0	0
5-10	0	0	0	1	1	1
10-15	4	10	14	9	2	1
15-20	3	2	8	5	1	2
20-25	0	1	5	1	0	1
25-30	0	0	0	0	0	0
30-35	0	0	0	0	0	0
35-40	0	0	0	0	0	0

	PERIOD (SECONDS)							
FREQUENCY INTENSITY	0-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21
0-0.5	12	1	0	0	0	0	0	0
1-1.5	6	16	7	3	0	0	0	0
2-3.5	8	5	10	0	0	0	0	0
4-5.5	0	5	7	5	0	0	1	0
6-8.5	0	0	5	2	0	0	0	0
9-11.5	0	0	0	0	0	0	0	0
12-15.5	0	0	0	0	0	0	0	0
16-19.5	0	0	0	0	0	0	0	0
>20	0	0	0	0	0	0	0	0

MONTH (1972)	PERIOD (SECO				
	0-5	6-7	8-9	10-11	12
0-5	9	1	0	0	0
1-5	22	14	9	4	3
2-5	0	0	7	4	2
3-5	0	1	1	0	0
4-5	0	0	0	0	0
5-7.5	0	0	0	0	0
8-9.5	0	0	0	0	0
>10	0	0	0	0	0

[illegible]

HEIGHT (INCHES)	PERIOD (SECONDS)						
	0.5	1	2	3	4	5	6
0-5	10	1	1	0	0	0	0
5-10	10	25	1	1	0	0	0
10-15	2	7	6	0	0	1	0
15-20	1	5	3	2	0	0	0
20-25	2	1	0	1	0	0	0
25-30	0	0	0	0	0	0	0
30-35	0	0	0	0	0	0	0
35-40	0	0	0	0	0	0	0

0-100 (SECONDS)							
	0	1	2	3	4	5	6
0-5	10	1	0	0	0	0	1
1-5	10	12	6	0	1	0	1
2-5	9	12	0	4	2	1	0
3-5	1	6	7	2	0	1	0
4-5	0	3	3	0	0	1	0
5-5	0	0	0	0	0	0	0
6-5	0	0	0	0	0	0	0
>10	U	0	0	0	0	0	0

AGE GROUP (YEARS)	PERIOD (SECONDS)						TIME
	0-5	6-9	10-14	15-19	20-24	25-29	
0-4	3	+	+	+	0	0	
5-9	8	10	4	1	1	+	
10-14	4	14	12	6	1	+	
15-19	+	6	5	4	2	1	
20-24	+	2	3	3	+	0	
25-29	0	1	+	1	+	+	
30-34	0	0	0	0	+	+	
35-39	0	0	0	0	0	0	

		PERIOD (SECOND)						
MEASUREMENT	UNIT	0-1	1-2	2-3	3-4	4-5	5-6	6-7
0-5		7	1	1	0	0	0	
1-5		10	7	7	0	0	1	
2-5		8	8	8	2	0		
3-5		2	9	8	1	0	0	
4-5		0	2	4	2	2	0	
5-5		0	0	1	9	0	0	
6-5		0	0	0	0	0	0	
>10		0	0	0	0	0	0	

PERIOD (HOURS)	PERIOD (SECS)				
	0-5	6-10	11-15	16-20	21-25
0-5	2	0	0	0	0
6-10	0	11	4	2	0
11-15	0	3	9	5	0
16-20	2	5	6	5	2
21-25	4	3	2	5	1
26-30	0	0	0	0	0
31-35	0	0	0	0	0
>35	0	0	0	0	0

PERIOD (SECONDS)	PERIOD (SECONDS)						
	0-5	5-10	10-15	15-20	20-25	25-30	30-35
0-5	1	1	1	0	0	0	1
5-10	16	14	2	0	0	0	4
10-15	4	7	13	2	0	0	1
15-20	2	4	3	3	1	1	2
20-25	6	1	2	3	1	3	1
25-30	0	0	0	1	1	0	0
30-35	0	0	0	0	0	1	0
TOTAL	0	0	0	0	0	0	0

[illegible]

31

**INSUFFICIENT
DATA**

32

**INSUFFICIENT
DATA**

[illegible]

PERIOD (SECS)	PERIOD (SECS)				
	0-5	5-10	10-15	15-20	20-25
0-5	5	2	0	0	0
5-10	5	15	17	2	0
10-15	10	5	10	5	0
15-20	0	0	7	7	0
20-25	0	2	0	0	0
25-30	0	0	2	0	0
30-35	0	0	5	0	0
>35	0	0	0	0	0

**INSUFFICIENT
DATA**

INSUFFICIENT DATA

Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

SEPTEMBER

on both are reported if both

	PERIOD (SECONDS)										5
WEIGHT (MTR)	<6	6-7	7-9	9-11	11-13	13-15	15-17	17-19	19-21	IND	
0-6	9	2	4	1	0	0	+				
1-6	20	21	7	1	2	+	+				
7-8	8	9	7	3	1	0	1				
8-9	+	4	2	+	+	0	0				
4-8	0	0	1	+	0	0	0				
9-7	0	0	0	0	0	0	0				
9-8	0	0	0	0	0	0	0				
+10	0	0	0	0	0	0	0				

818

[illegible][illegible]

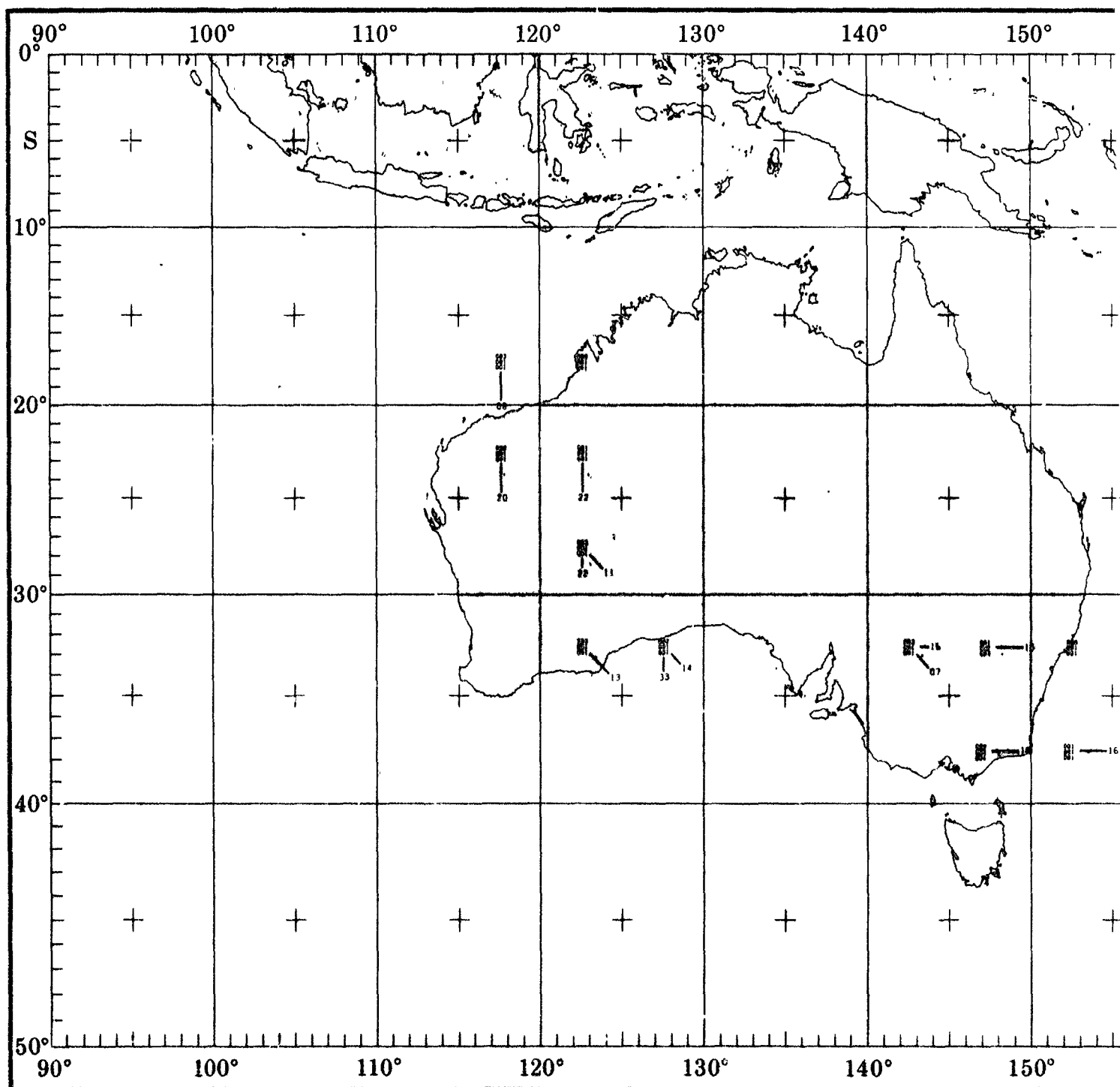
PERIOD (SECONDS)	PERIOD (SECONDS)					
	0-5	5-10	10-15	15-20	20-25	25-30
0-5	12	0	0	0	0	0
5-10	20	0	24	0	0	0
10-15	0	0	0	0	0	0
15-20	0	0	0	0	0	0
20-25	0	12	0	12	0	0
25-30	0	0	0	0	0	0
30-35	0	0	0	0	0	0
35-40	0	0	0	0	0	0
40-45	0	0	0	0	0	0
45-50	0	0	0	0	0	0
50-55	0	0	0	0	0	0
55-60	0	0	0	0	0	0

**INSUFFICIENT
DATA**

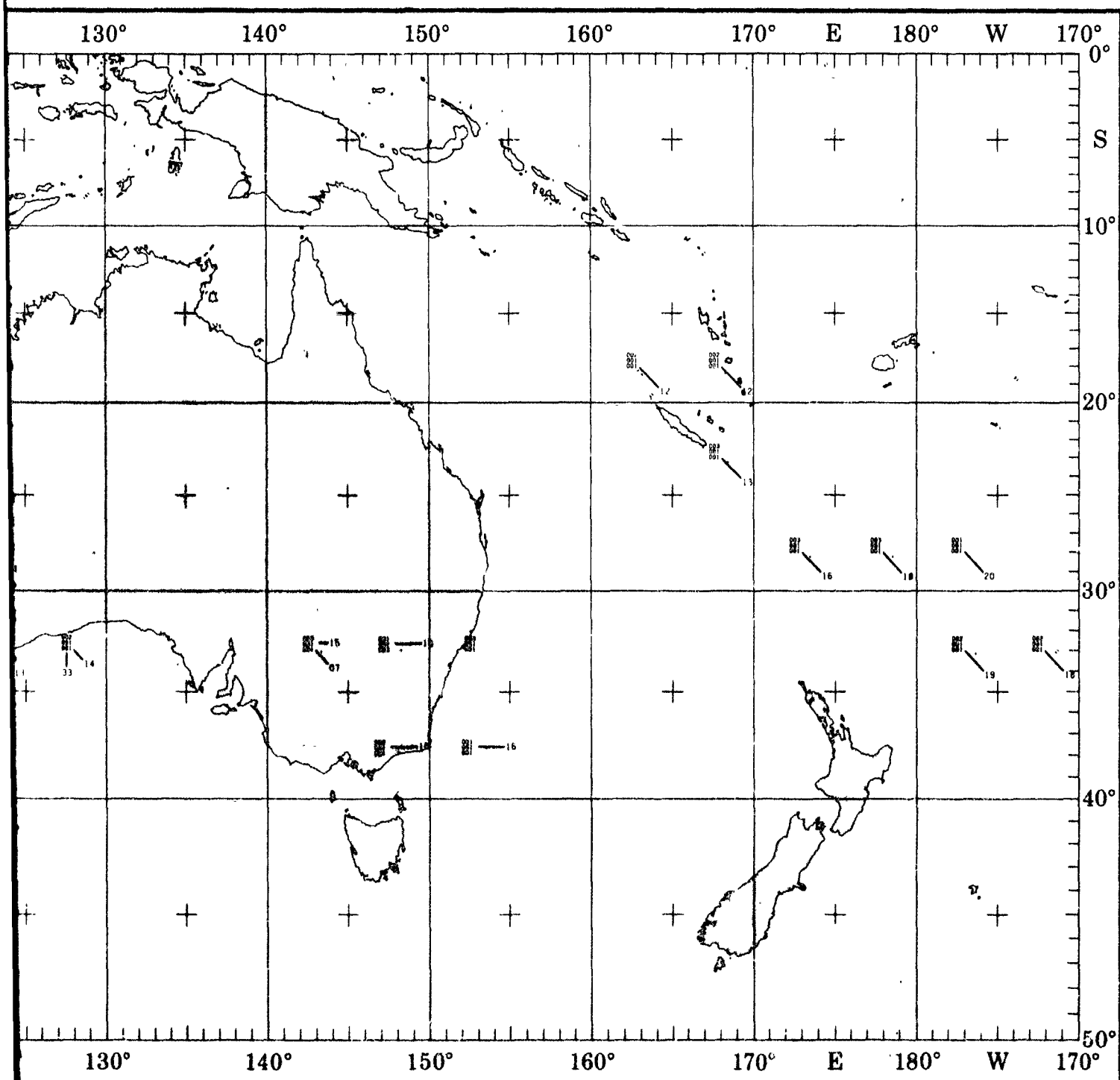
INSUFFICIENT DATA

251

SEPTEMBER



TROPICAL CYCLONE

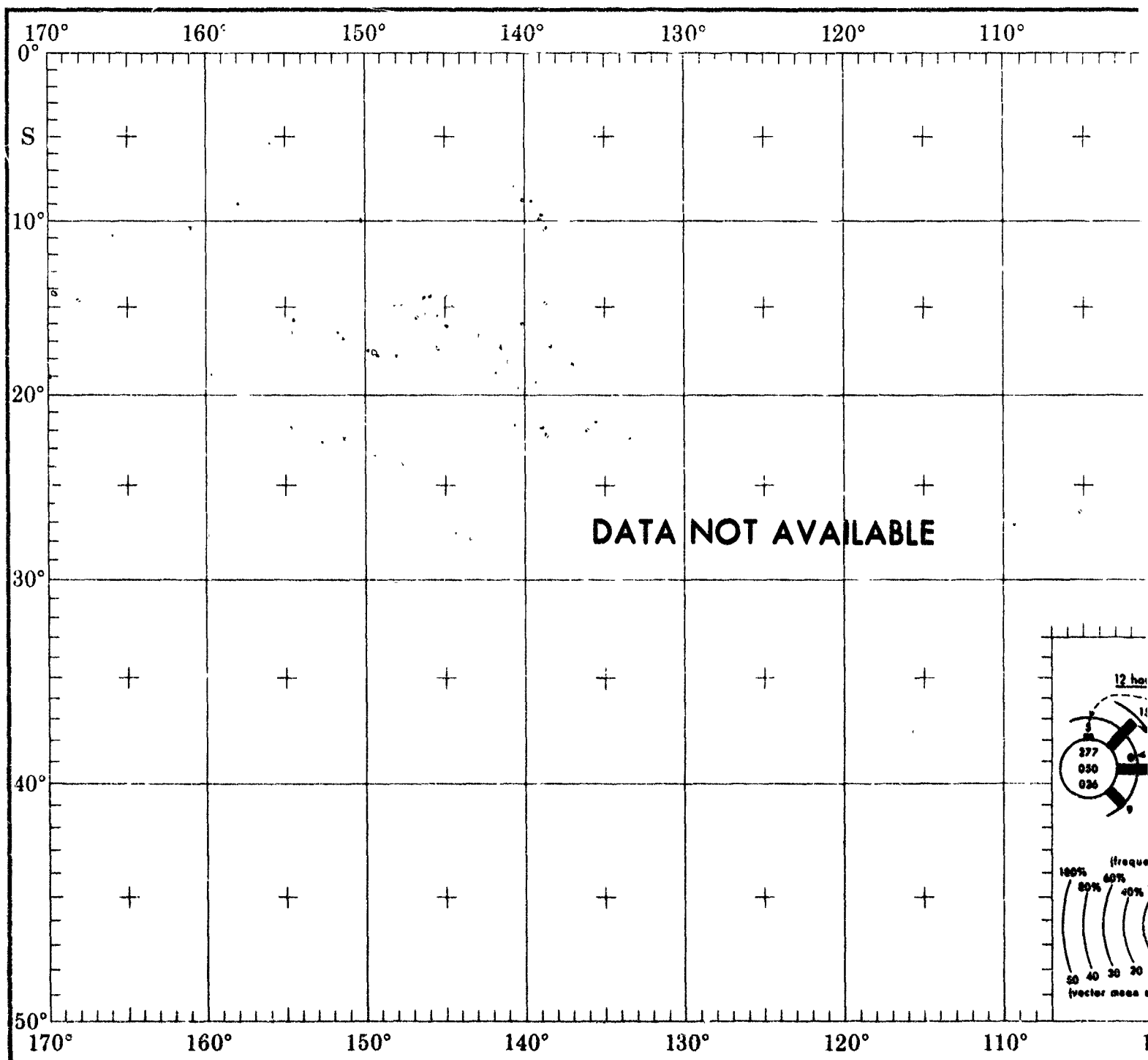


7

1

2

TROPICAL CYCLONE

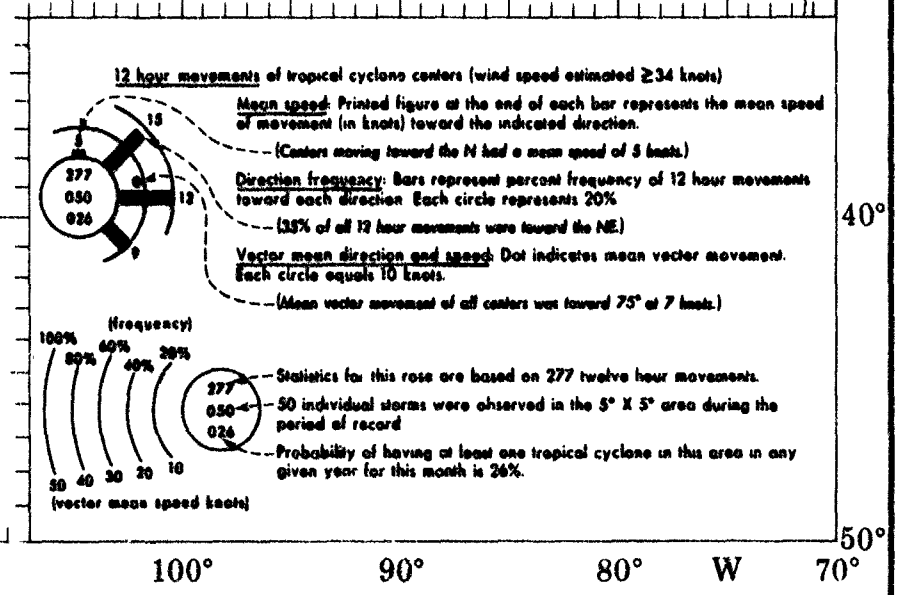


1

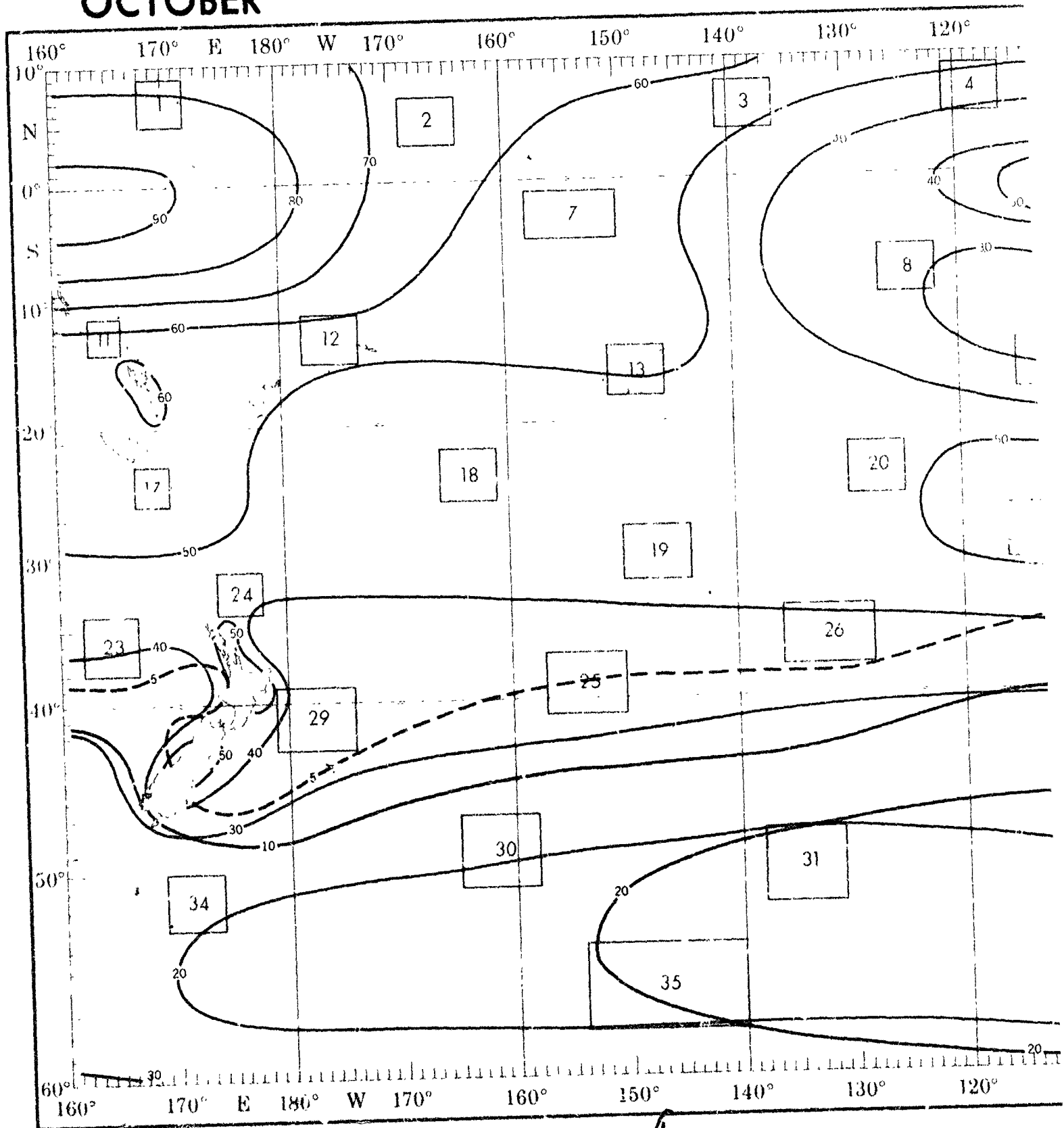
1

SEPTEMBER

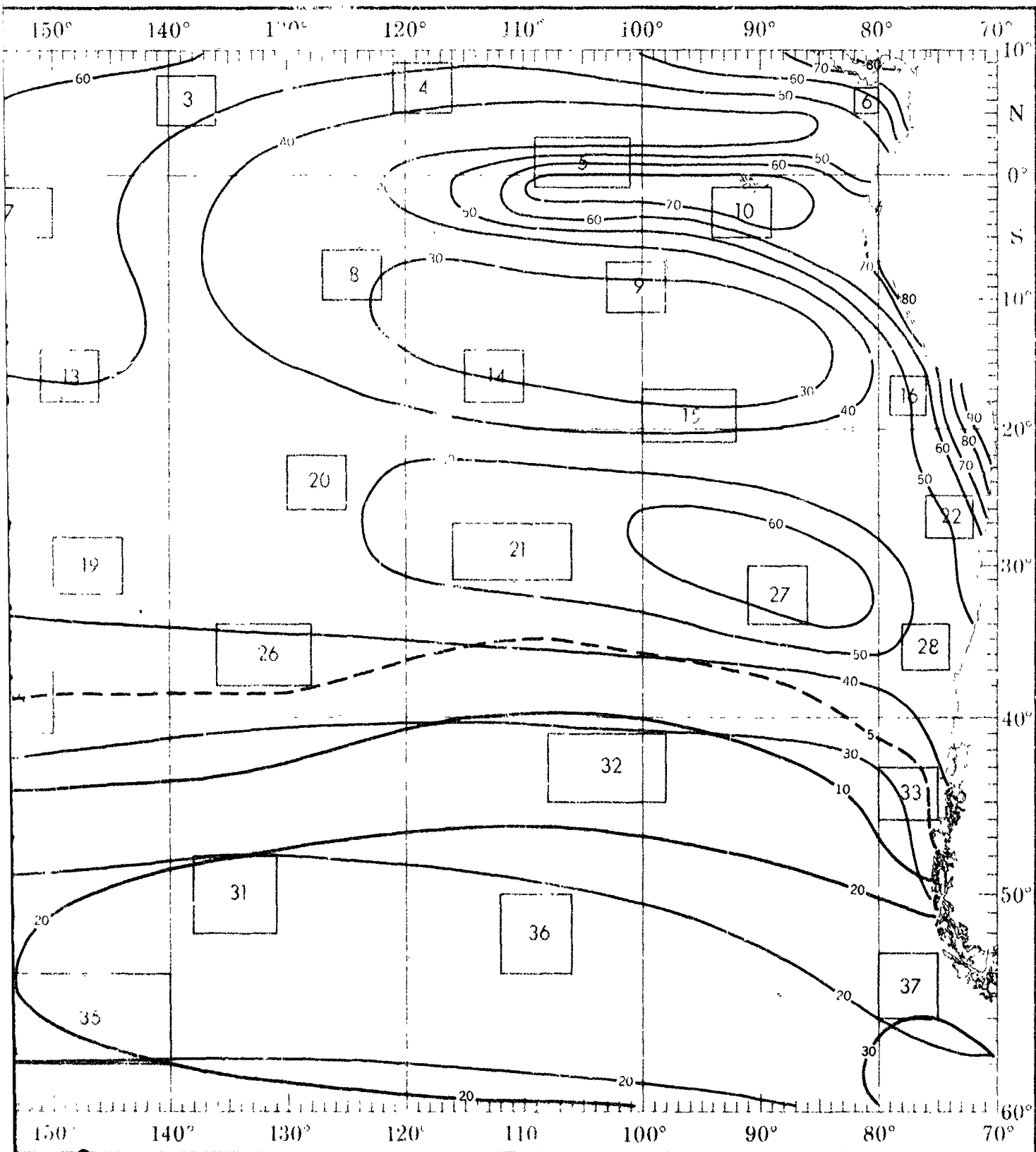
DATA NOT AVAILABLE



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SURFACE WINDS



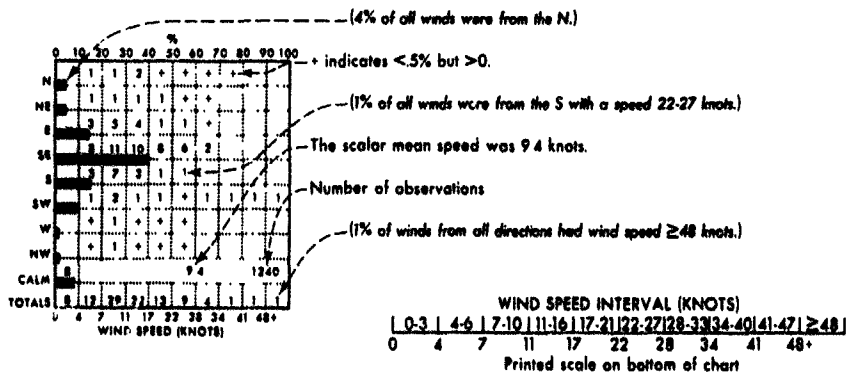
1

1

2

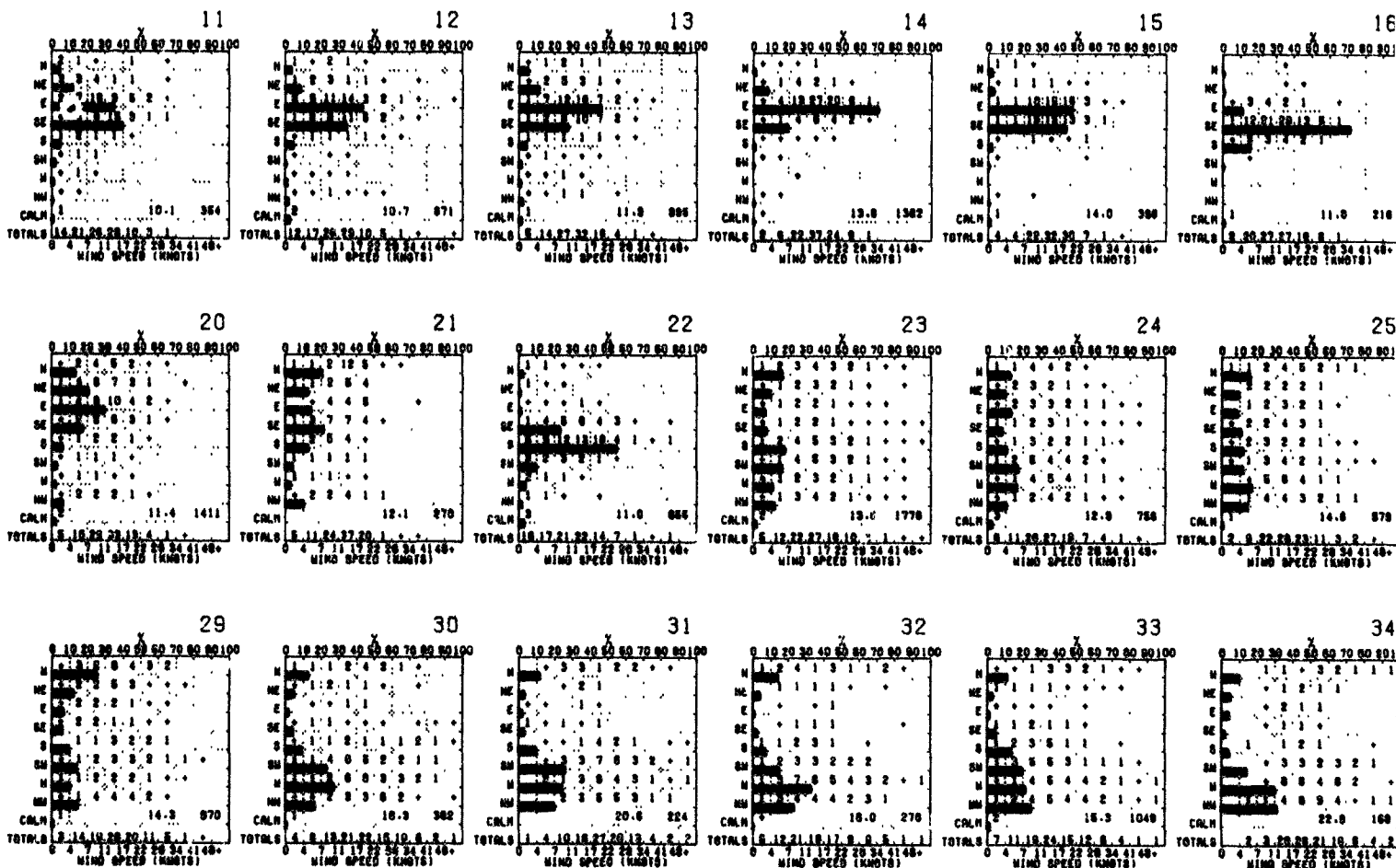
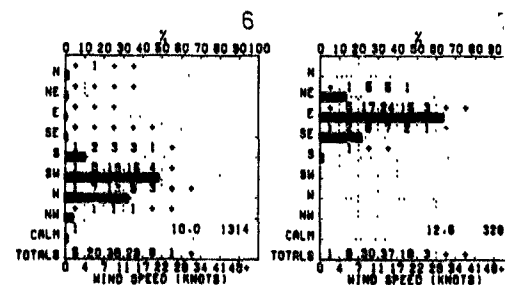
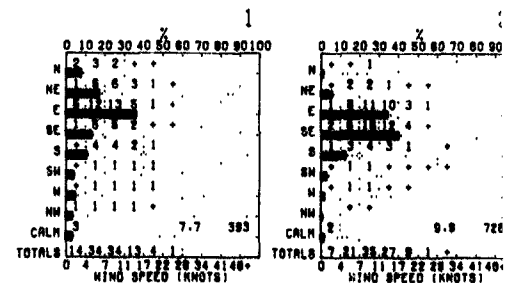
WIND DIRECTION AND SPEED

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots



Graphs represent the objective compilation of available data for specified areas without regard. The isopleth analyses (opposite page) are based on all available data subjectively adjusted w

D SPEED

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each direction Speed frequency
each direction

(note)

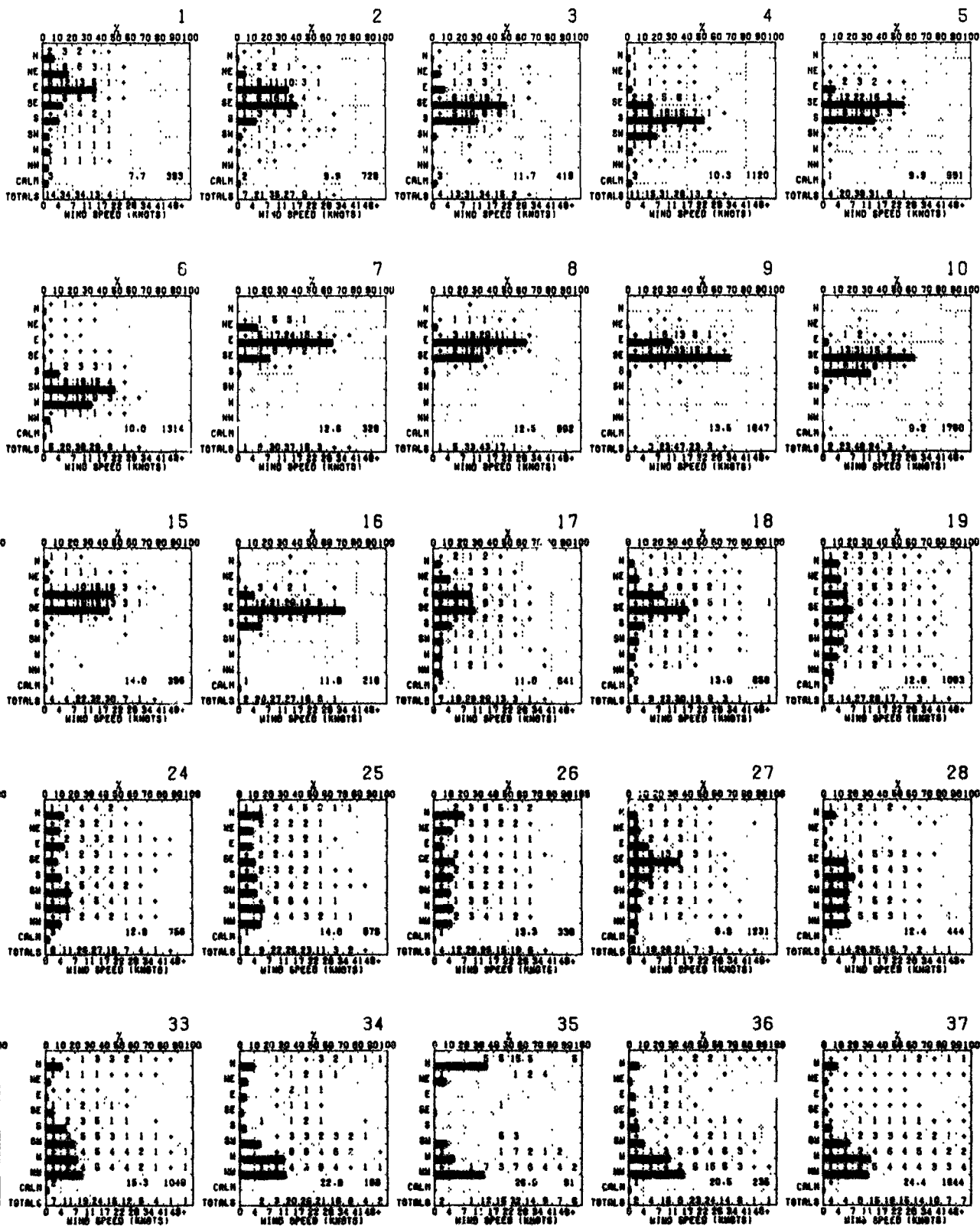
(note)

(note)

04-40(41-47) ≥ 48

41 48

part

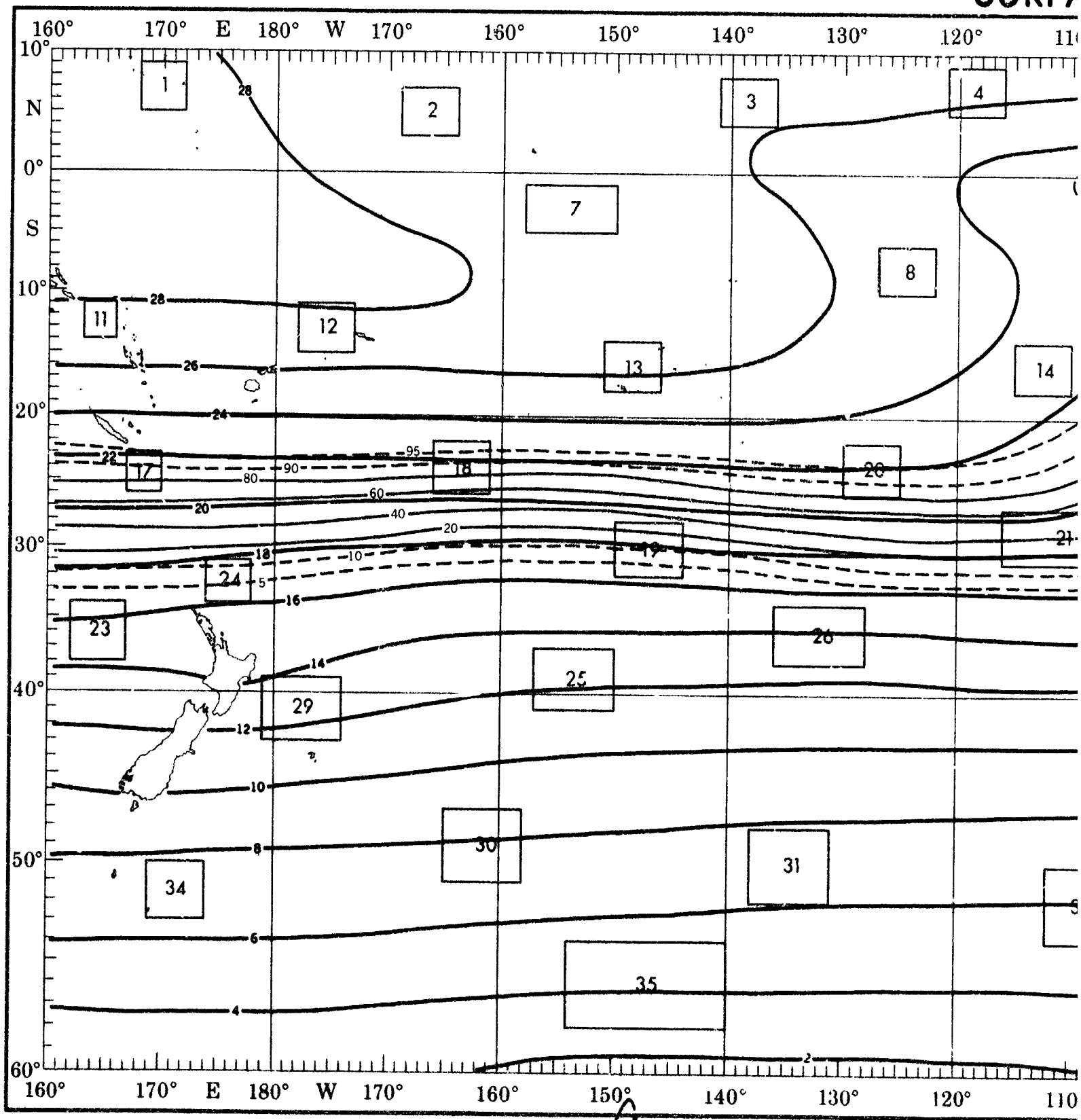


the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

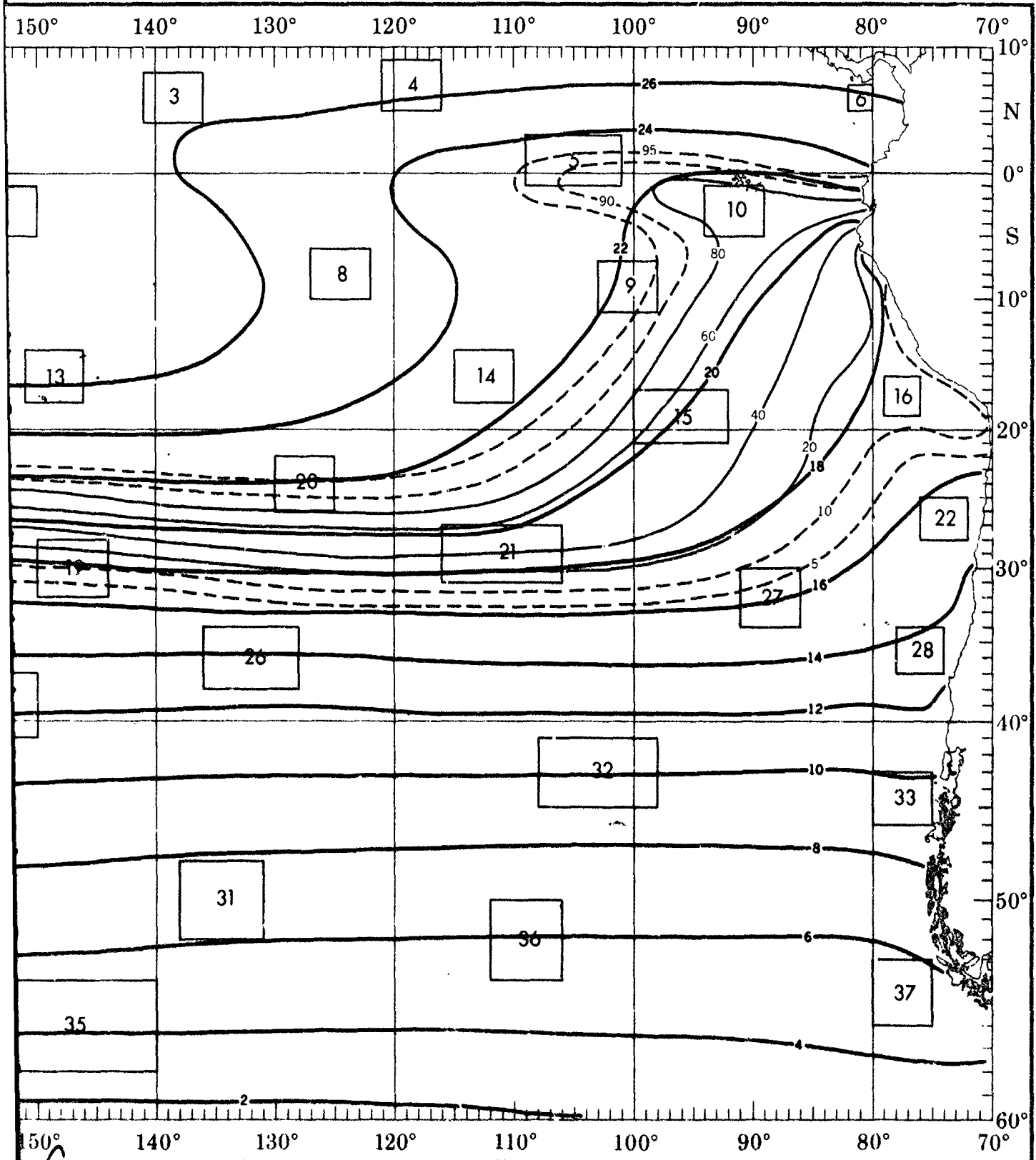
2

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SURFA

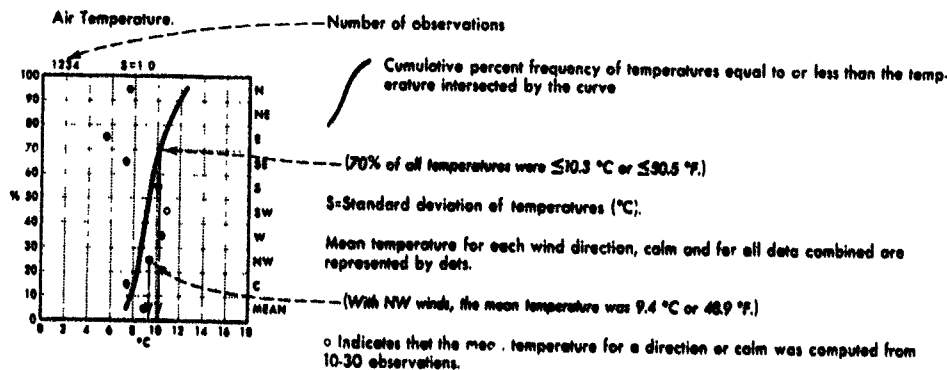


SURFACE AIR TEMPERATURE



7 1 2

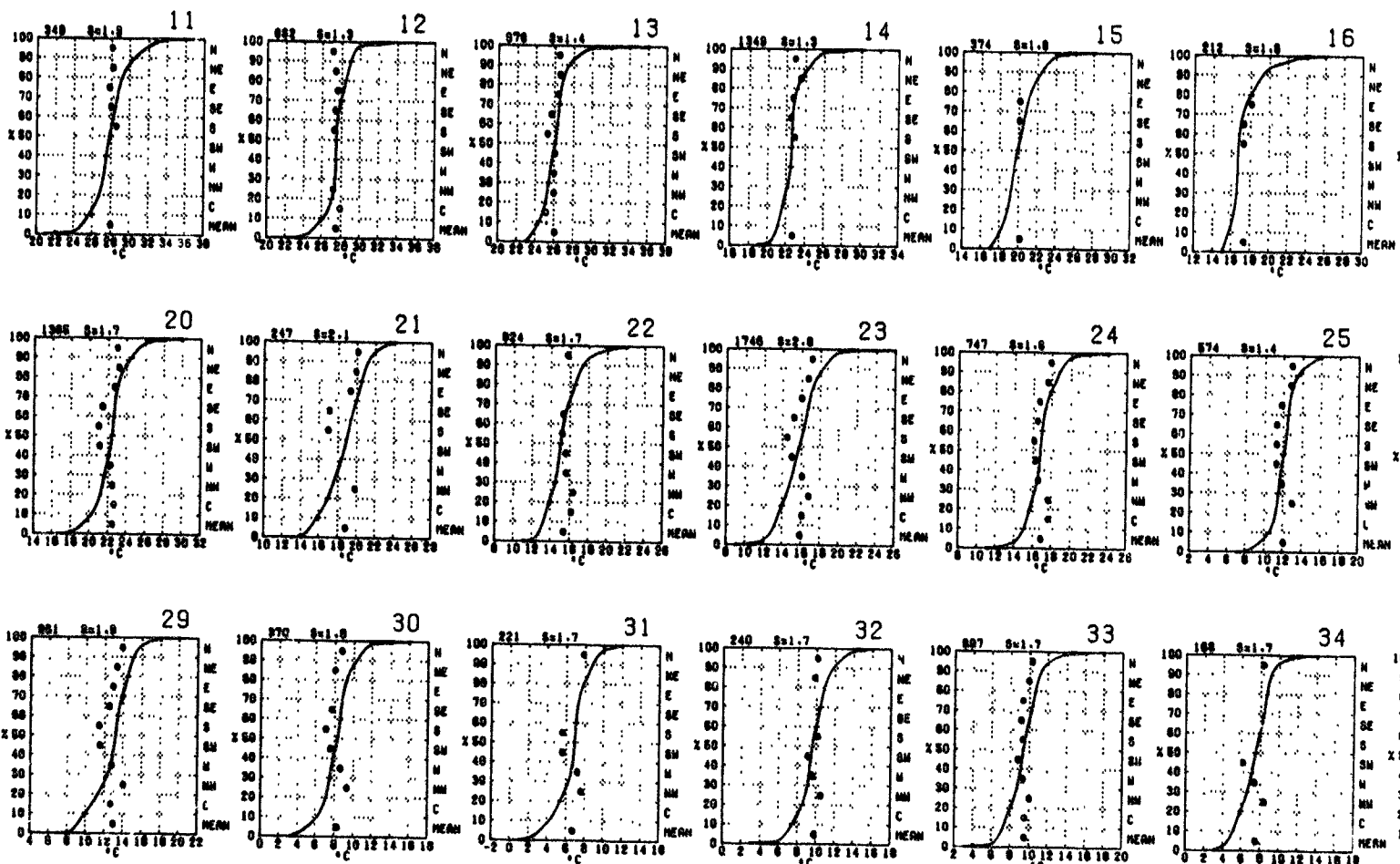
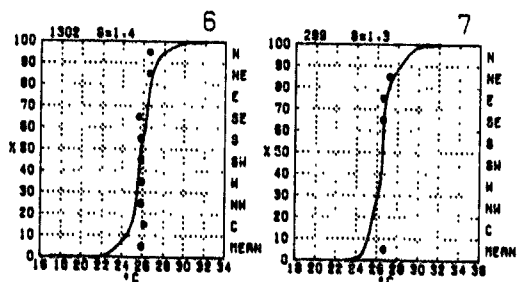
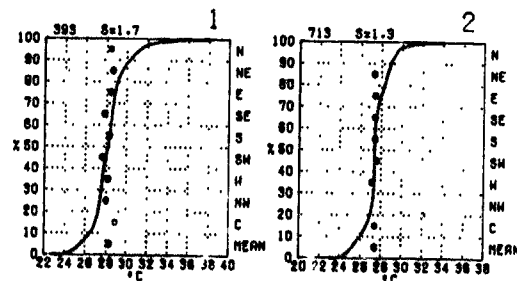
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available.

BLACK LINE - Mean air temperature ($^{\circ}\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^{\circ}\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

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al to or less than the temp.

All data combined are

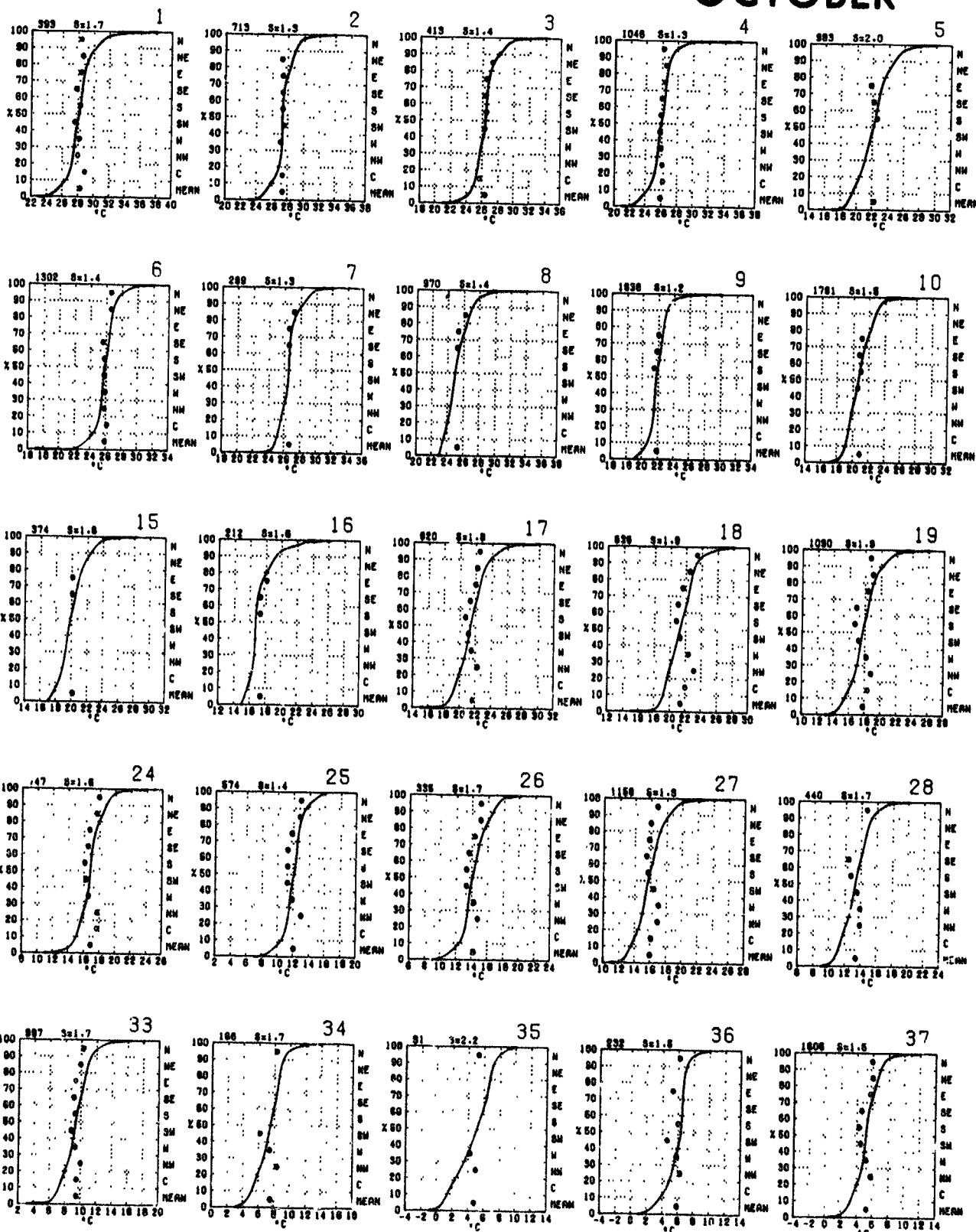
am was computed from

variable

M

X

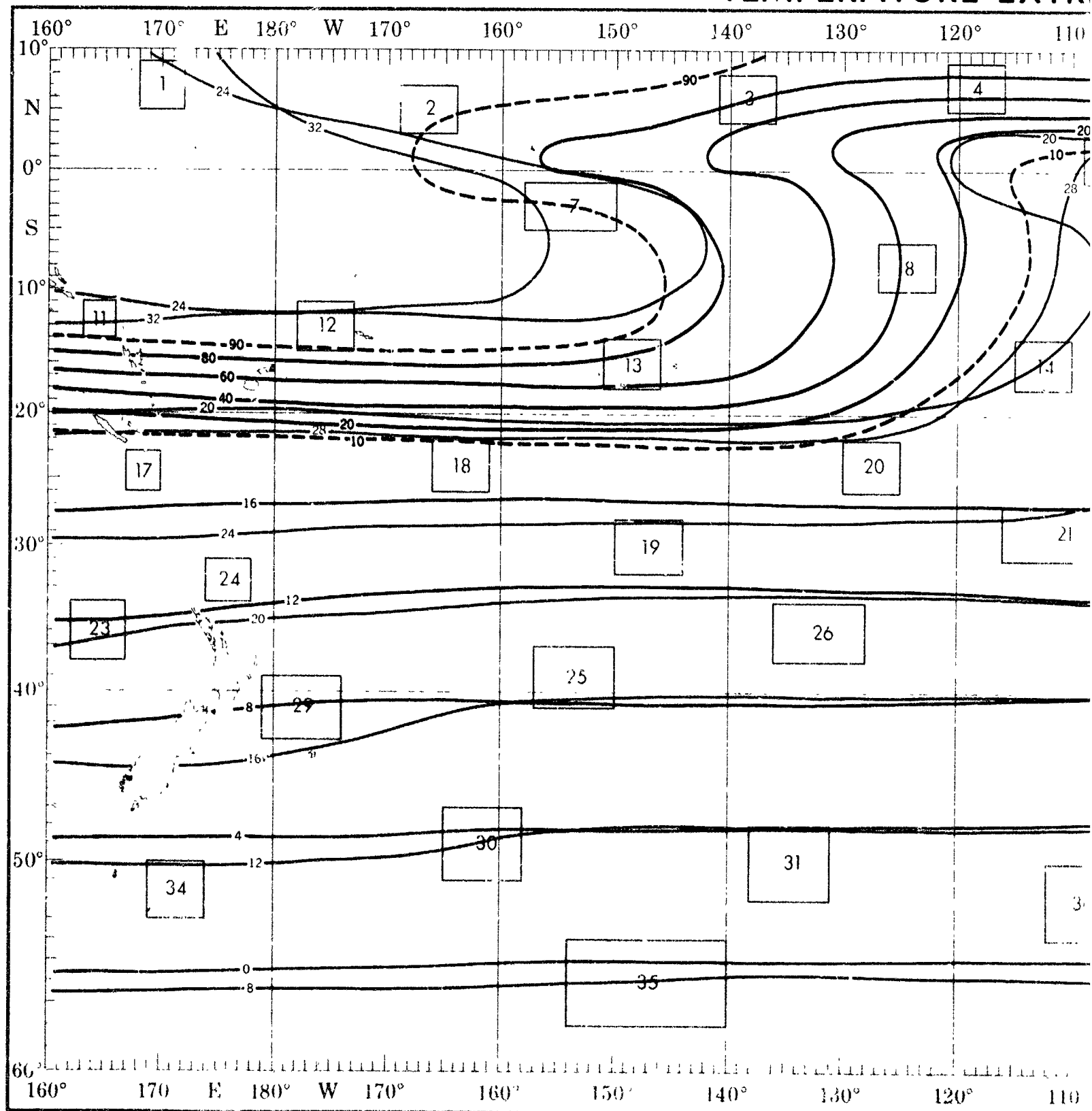
X



objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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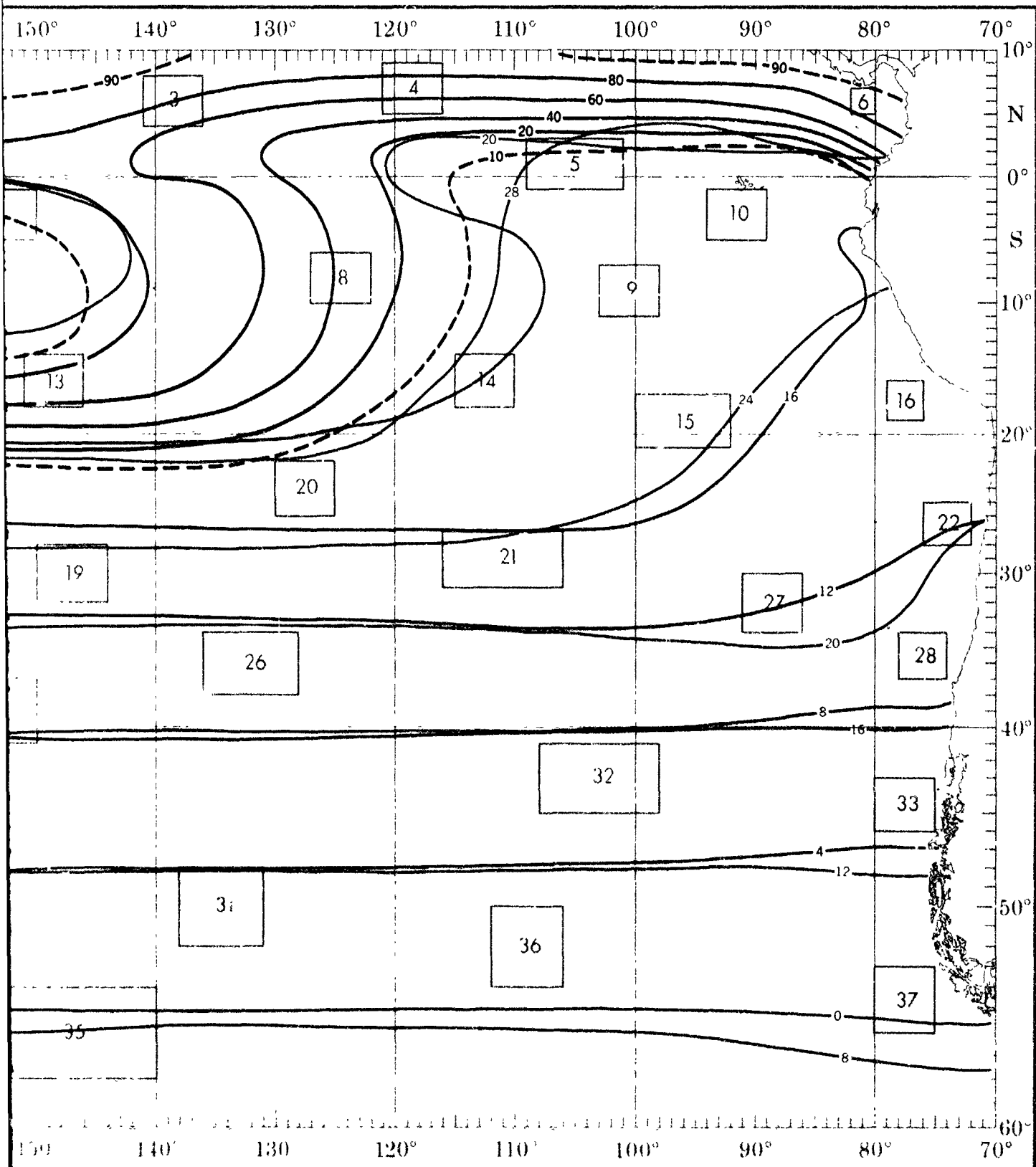
TEMPERATURE EXTR



7

1

TEMPERATURE EXTREMES AND T-H INDEX



7 1 2

WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

Temp (°C)	0-3	4-10	11-21	22-33	≥34
4.3	1	0	0	0	0
2.3	1	0	0	0	0
0.3	1	0	0	0	0
-1.7	1	0	0	0	0
-3.7	0	0	0	0	0
-5.7	0	0	0	0	0
-7.7	0	0	0	0	0
-9.7	0	0	0	0	0
-11.7	0	0	0	0	0
-13.7	0	0	0	0	0
-15.7	0	0	0	0	0
-17.7	0	0	0	0	0
-19.7	0	0	0	0	0
-21.7	0	0	0	0	0
-23.7	0	0	0	0	0
-25.7	0	0	0	0	0
-27.7	0	0	0	0	0
-29.7	0	0	0	0	0
-31.7	0	0	0	0	0
-33.7	0	0	0	0	0
-35.7	0	0	0	0	0
-37.7	0	0	0	0	0
-39.7	0	0	0	0	0
-41.7	0	0	0	0	0
-43.7	0	0	0	0	0
-45.7	0	0	0	0	0
-47.7	0	0	0	0	0
-49.7	0	0	0	0	0
-51.7	0	0	0	0	0
-53.7	0	0	0	0	0
-55.7	0	0	0	0	0
-57.7	0	0	0	0	0
-59.7	0	0	0	0	0
-61.7	0	0	0	0	0
-63.7	0	0	0	0	0
-65.7	0	0	0	0	0
-67.7	0	0	0	0	0
-69.7	0	0	0	0	0
-71.7	0	0	0	0	0
-73.7	0	0	0	0	0
-75.7	0	0	0	0	0
-77.7	0	0	0	0	0
-79.7	0	0	0	0	0
-81.7	0	0	0	0	0
-83.7	0	0	0	0	0
-85.7	0	0	0	0	0
-87.7	0	0	0	0	0
-89.7	0	0	0	0	0
-91.7	0	0	0	0	0
-93.7	0	0	0	0	0
-95.7	0	0	0	0	0
-97.7	0	0	0	0	0
-99.7	0	0	0	0	0

— (1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts.)

+ Indicates < 5% but > 0

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
30.37	1	0	0	0	0
34.35	1	1	0	0	0
32.33	1	1	0	0	0
30.31	3	7	1	0	0
28.29	7	39	10	+	0
26.27	2	18	5	+	0
24.25	+	1	1	1	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	+	+	1	0	0
30.31	+	2	1	0	0
28.29	3	23	17	1	0
26.27	4	28	15	1	0
24.25	+	3	2	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

BLACK LINE - Percent frequency of T-H index ≥24°C (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
30.31	+	1	+	0	0
28.29	1	6	2	0	0
26.27	3	33	18	1	0
24.25	2	16	15	+	0
22.23	+	1	1	0	0
20.21	0	+	+	0	0
18.19	0	0	+	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
32.33	0	0	+	0	0
30.31	0	2	1	0	0
28.29	1	12	9	0	0
26.27	1	25	33	2	0
24.25	0	4	9	1	0
22.23	+	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.36	1	0	0	0	0
32.34	2	3	+	0	0
30.32	3	7	2	0	0
28.30	6	20	14	2	0
26.28	4	14	17	2	0
24.26	0	3	2	1	0
22.24	0	+	0	0	0
20.22	0	0	0	0	0
18.20	0	0	0	0	0
16.18	0	0	0	0	0
14.16	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
30.30	+	+	1	0	0
28.28	+	1	1	+	0
26.26	7	20	16	1	0
24.24	8	20	20	3	+
22.22	+	2	1	1	0
20.20	0	+	+	0	0
18.18	0	0	0	0	0
16.16	0	0	0	0	0
14.14	0	0	0	0	0
12.12	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
34.36	0	+	+	0	0
32.34	0	+	0	0	0
30.32	0	+	1	0	0
28.30	1	6	7	+	0
26.28	3	24	25	2	+
24.26	2	9	14	3	0
22.24	+	1	1	+	0
20.22	0	0	0	0	0
18.20	0	0	0	0	0
16.18	0	0	0	0	0
14.16	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
28.28	0	1	+	0	0
26.26	0	1	1	+	0
24.24	+	6	11	1	0
22.22	1	19	41	6	0
20.20	+	2	8	1	0
18.18	0	+	0	0	0
16.16	0	0	0	0	0
14.14	0	0	0	0	0
12.12	0	0	0	0	0
10.10	0	0	0	0	0
8.08	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
26.27	+	+	0	0	0
24.25	+	1	2	0	0
22.23	1	8	10	1	0
20.21	1	9	29	5	0
18.19	1	9	21	3	+
16.17	0	1	1	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.09	0	0	0	0	0
6.07	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
26.27	0	+	0	0	0
24.25	0	+	0	0	0
22.23	0	2	+	0	0
20.21	0	2	3	+	0
18.19	1	18	6	2	+
16.17	1	23	28	4	+
14.15	0	2	4	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.09	0	0	0	0	0
6.07	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
28.28	+	1	+	0	0
26.27	+	1	1	+	0
24.25	1	10	9	+	+
22.23	3	22	23	2	0
20.21	1	8	11	2	0
18.19	+	1	1	1	0
16.17	0	+	0	+	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.09	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
24.26	0	0	+	0	0
22.24	+	4	8	0	0
20.22	2	9	21	2	0
18.20	+	9	23	+	0
16.18	+	8	9	0	0
14.16	0	7	+	0	0
12.14	0	+	0	0	0
10.12	0	+	0	0	0
8.10	0	0	0	0	0
6.08	0	0	0	0	0
4.06	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
22.22	+	+	0	+	0
20.20	1	1	+	+	0
18.18	1	5	3	+	0
16.16	8	12	6	2	0
14.14	7	19	20	5	1
12.12	1	2	4	1	0
10.10	+	+	+	0	0
8.08	0	0	0	0	0
6.06	0	0	0	0	0
4.04	0	0	0	0	0
2.02	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
22.22	+	+	0	0	0
20.20	+	+	0	0	0
18.18	+	1	1	+	0
16.16	1	5	9	2	+
14.14	2	15	18	5	+
12.12	2	10	14	4	1
10.10	1	3	5	2	+
8.08	+	+	+	+	0
6.06	0	0	0	0	0
4.04	0	0	0	0	0
2.02	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
22.22	+	+	+	0	0
20.20	+	2	2	+	0
18.18	2	11	12	2	0
16.16	3	20	25	6	1
14.14	1	4	8	2	0
12.12	0	+	+	0	0
10.10	0	0	0	0	0
8.08	0	0	0	0	0
6.06	0	0	0	0	0
4.04	0	0	0	0	0
2.02	0	0	0	0	0

WIND SPEED (KTS)					
TEMP (°C)	0-3	4-10	11-21	22-33	≥34
10.17	0	1	1	+	
14.16	0	4	5	2	
19.13	1	16	29	6	
10.11	1	10	16	4	
9.8	0	1	+	1	
8.7	0	0	0	0	
4.8	0	0	0	0	
2.8	0	0	0	0	
0.1	0	0	0	0	
-2.1	0	0	0	0	
-6.1,-9	0	0	0	0	

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given value)

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WIND SPEED (KTS)				
TEMP (°C)	0-3	4-10	11-21	22-30 > 34
10-17	0	+	+	0 0
14-16	+	1	+	0 0
18-19	+	3	4	1 +
10-11	2	12	10	0 2
0-0	3	11	16	7 3
0-7	1	3	3	1 1
4-6	0	0	+	+
2-3	0	0	0	0 0
0-1	0	0	0	0 0
-0-1	0	0	0	0 0
-0-8	0	0	0	0 0
-0-7	0	0	0	0 0

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WIND SPEED (KTS)				
TEMP (°C)	0-3	4-10	11-21	22-30 > 34
10-19	0	0	0	1 0
10-11	0	1	5	6 2
0-0	0	2	19	16 6
0-7	0	1	18	13 4
4-8	0	0	6	9 1
2-9	0	1	0	0 1
0-1	0	0	0	0 0
-2-1	0	0	0	0 0
-0-9	0	0	0	0 0
-0-7	0	0	0	0 0
-0-8	0	0	0	0 0
-0-7	0	0	0	0 0

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WIND SPEED (KTS)				
TEMP (°C)	0-3	4-10	11-21	22-30 > 34
0-0	0	0	2	3 1
0-7	0	0	8	14 21
4-6	2	0	5	10 1
2-3	0	1	6	7 0
0-1	0	0	7	4 0
-2-1	0	0	0	0 0
-4-9	0	0	0	0 0
-0-9	0	0	0	0 0
-0-7	0	0	0	0 0
-10-9	0	0	0	0 0
-12-11	0	0	0	0 0

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WIND SPEED (KTS)				
TEMP (°C)	0-3	4-10	11-21	22-30 > 34
10-11	0	0	0	1 0
0-0	+	2	4	2 0
0-7	2	10	18	25 8
4-6	0	0	8	8 9
2-8	0	0	1	2 +
0-1	0	0	+	1 0
-0-2	0	0	0	0 0
-4-9	0	0	0	0 0
-0-6	0	0	0	0 0
-0-7	0	0	0	0 0
-10-9	0	0	0	0 0

233

37

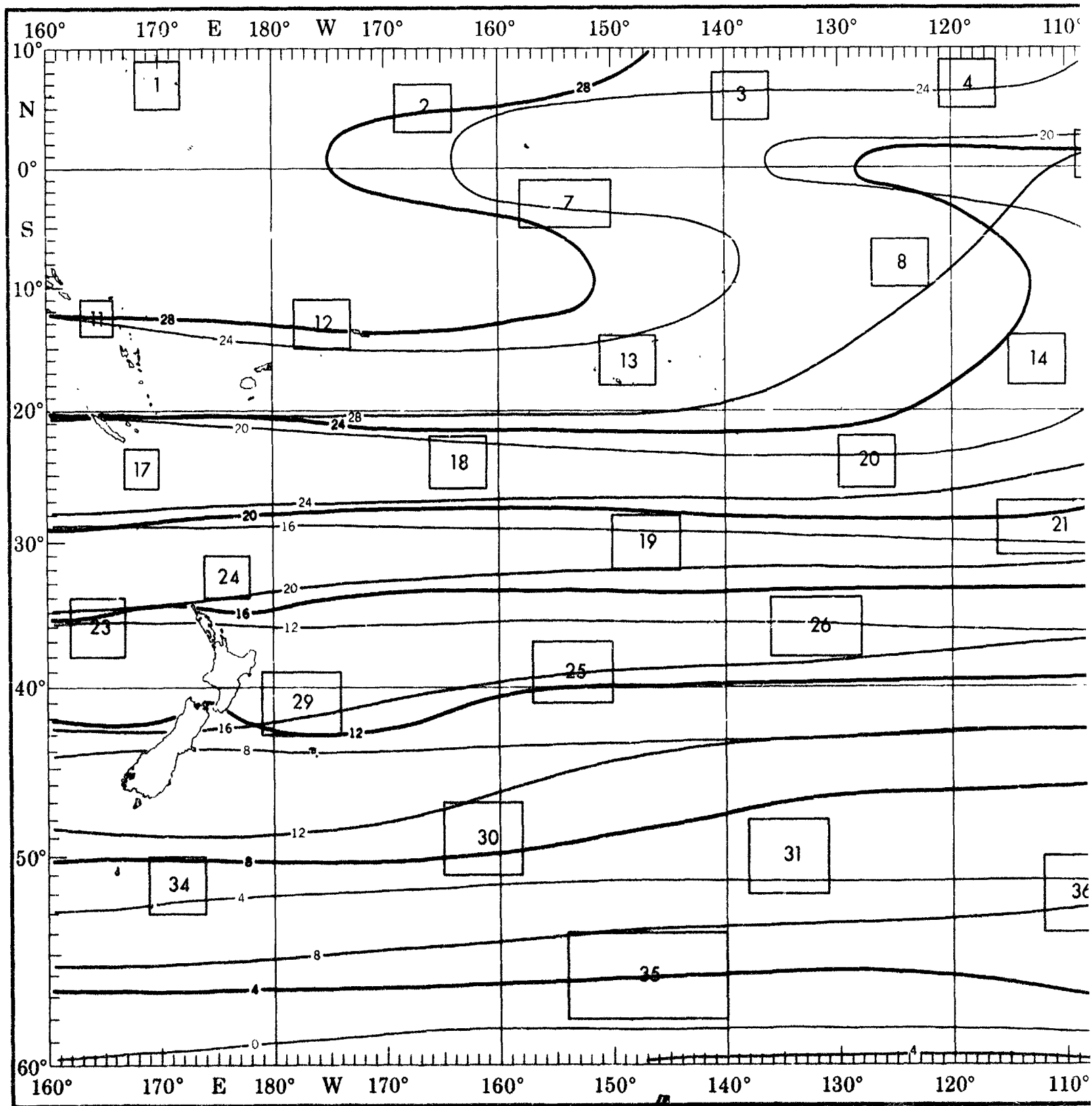
WIND SPEED (KTS)				
TEMP (°C)	0-3	4-10	11-21	22-30 > 34
10-13	0	+	0	+
10-11	0	+	+	0 0
0-0	+	1	2	1 1
0-7	1	4	12	11 10
4-6	2	6	14	13 12
0-9	+	1	3	13 2
0-1	0	0	+	1 +
-0-1	0	0	0	+
-4-9	0	0	0	0 0
-0-6	0	0	0	0 0
-0-6	0	0	0	0 0
-0-7	0	0	0	0 0

1605

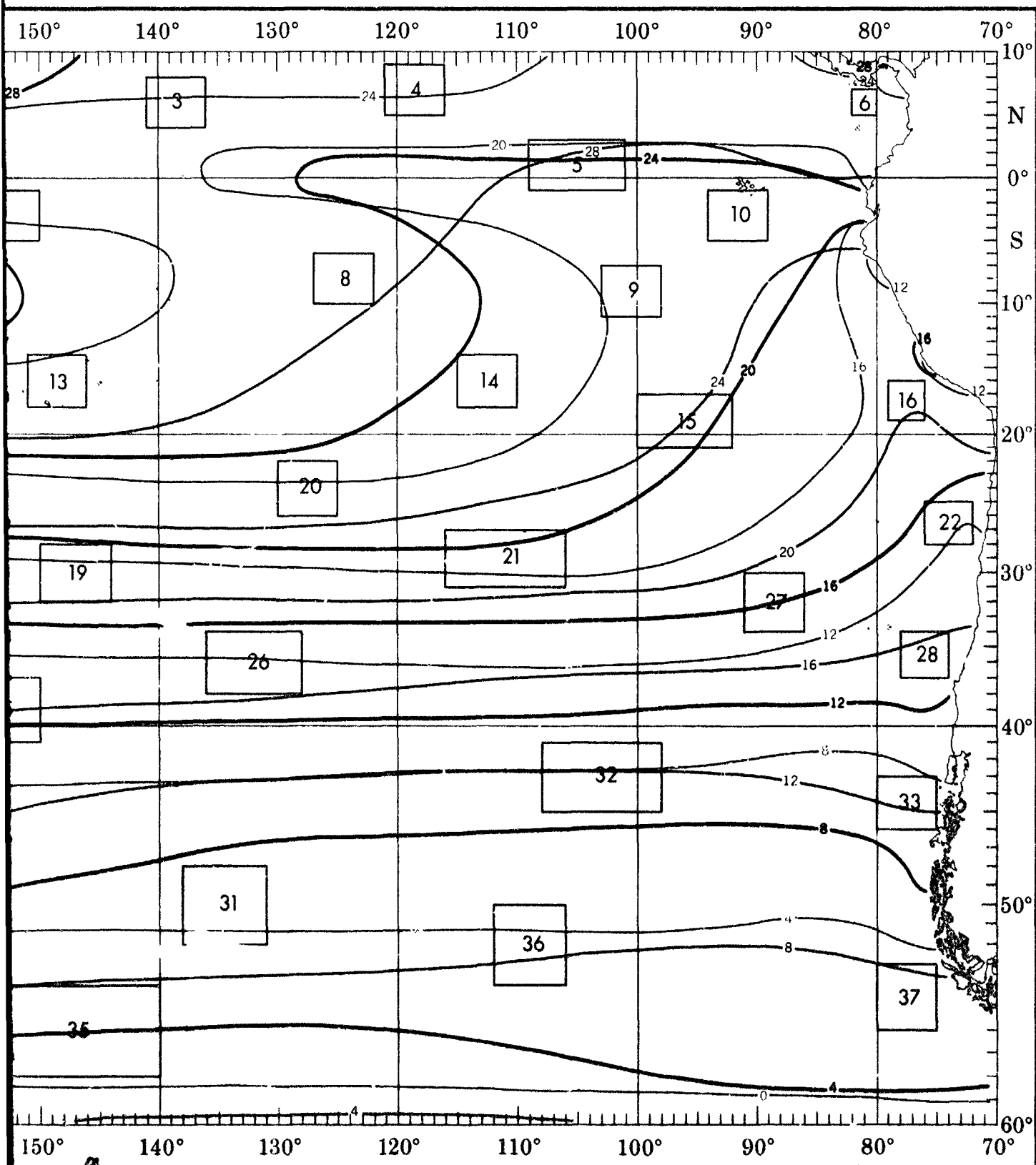
259

OCTOBER

SEA SU



SEA SURFACE TEMPERATURE

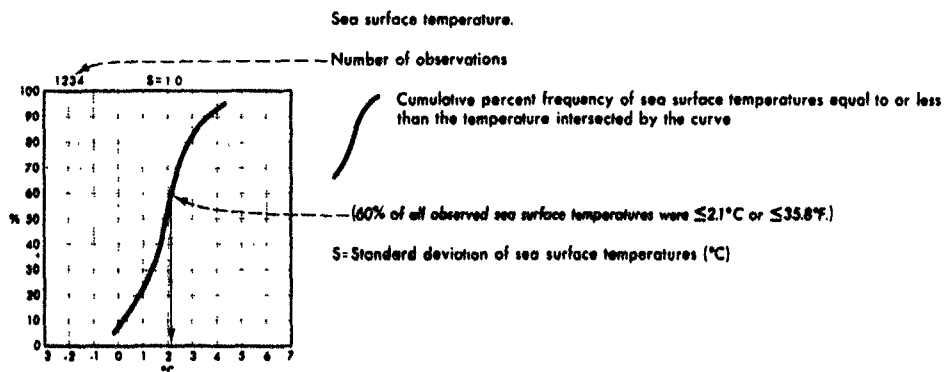


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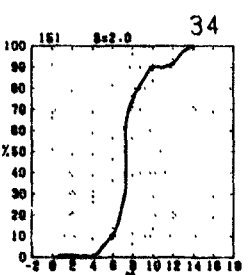
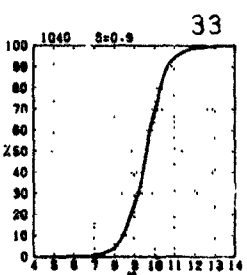
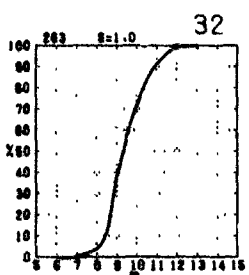
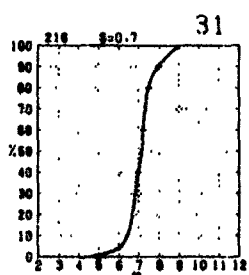
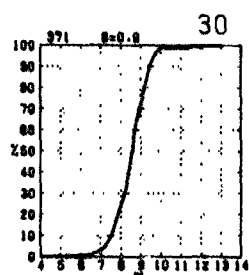
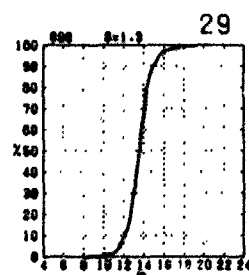
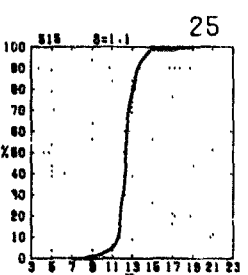
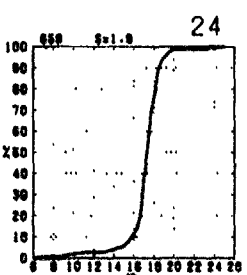
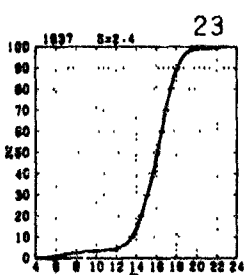
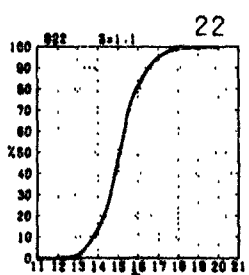
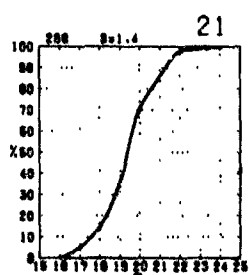
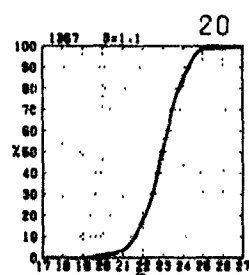
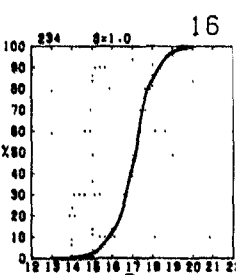
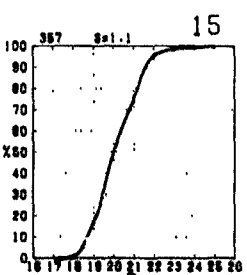
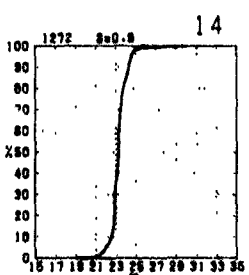
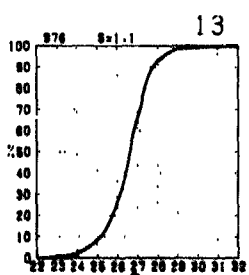
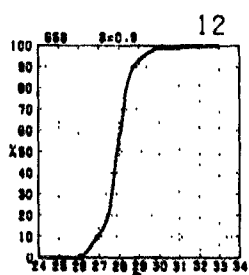
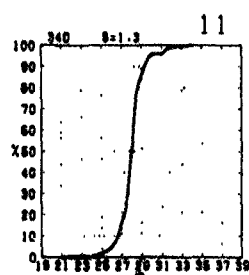
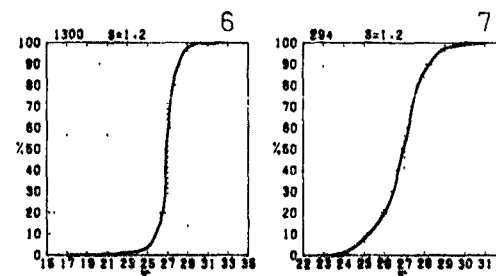
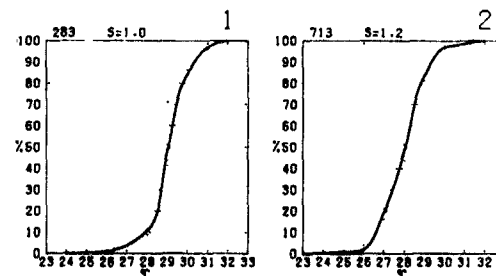
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted wh

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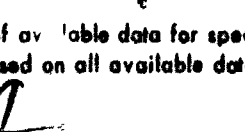
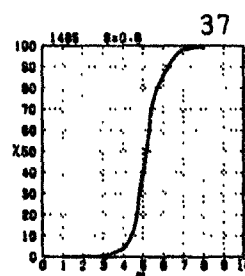
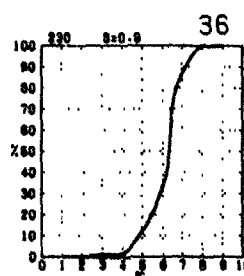
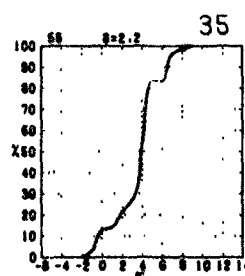
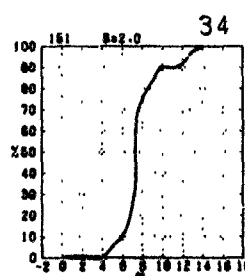
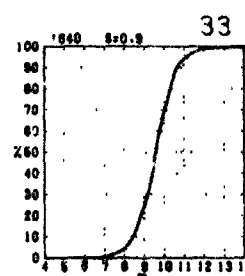
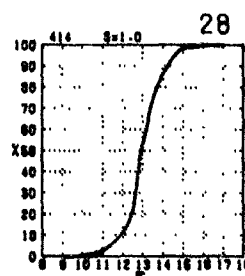
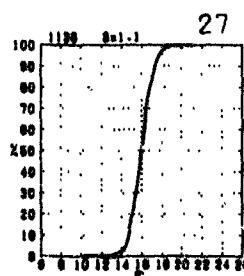
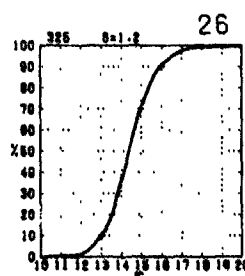
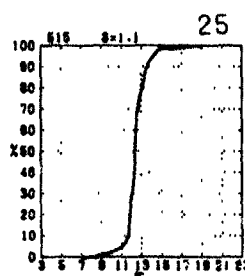
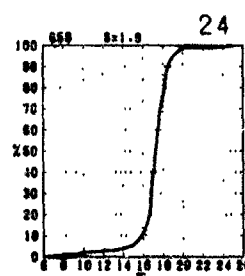
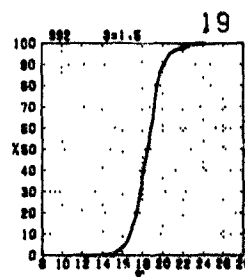
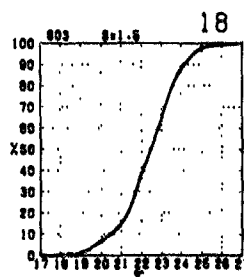
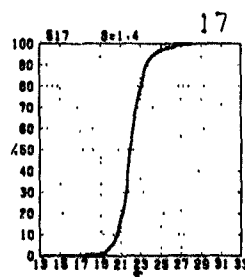
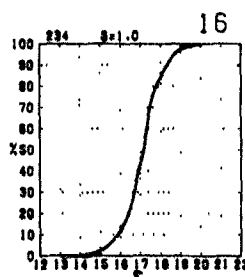
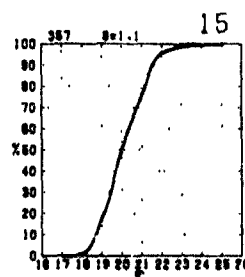
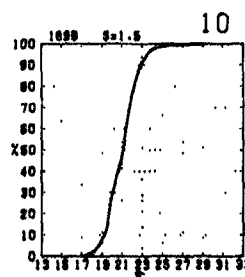
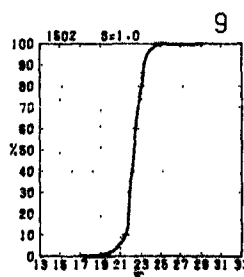
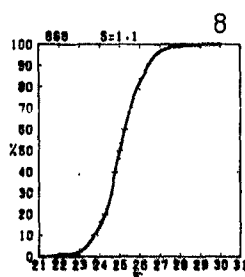
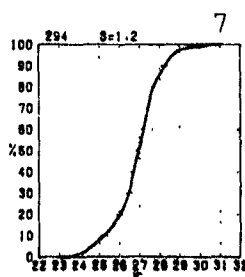
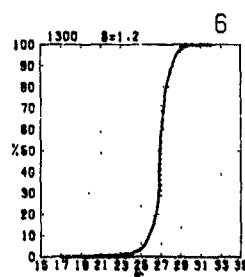
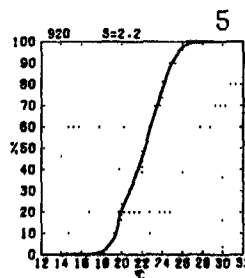
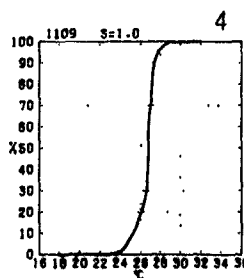
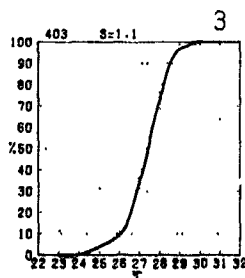
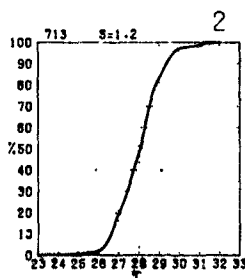
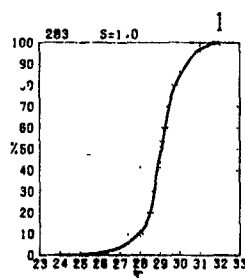
OCTOBER

temperatures equal to or less

or $\leq 35.8^\circ\text{F}$)

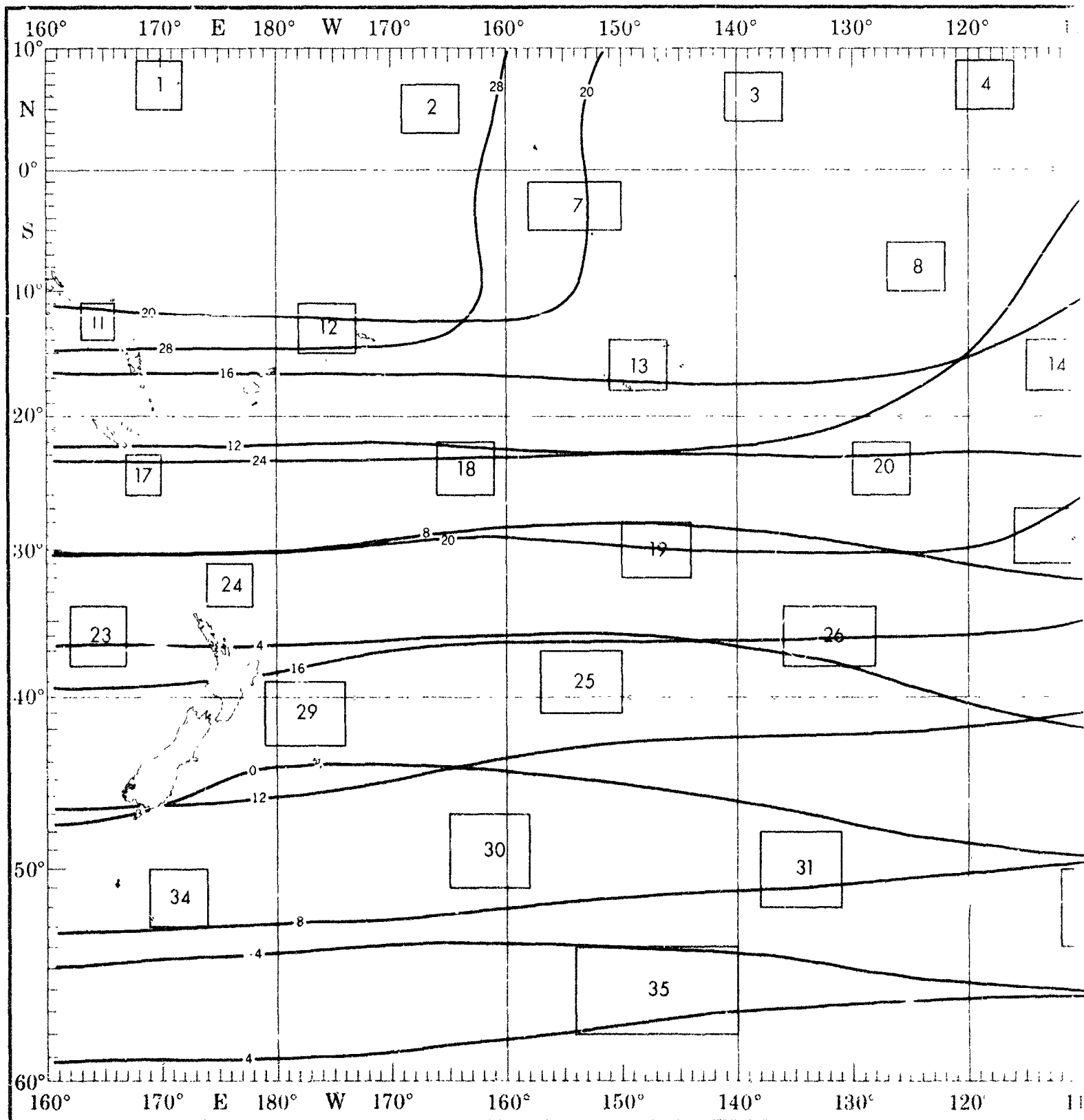
or less than the given

or than the given value)



the objective compilation of available data for specified areas without regard to suspected biases.
 (opposite page) are based on all available data subjectively adjusted where bias was evident.

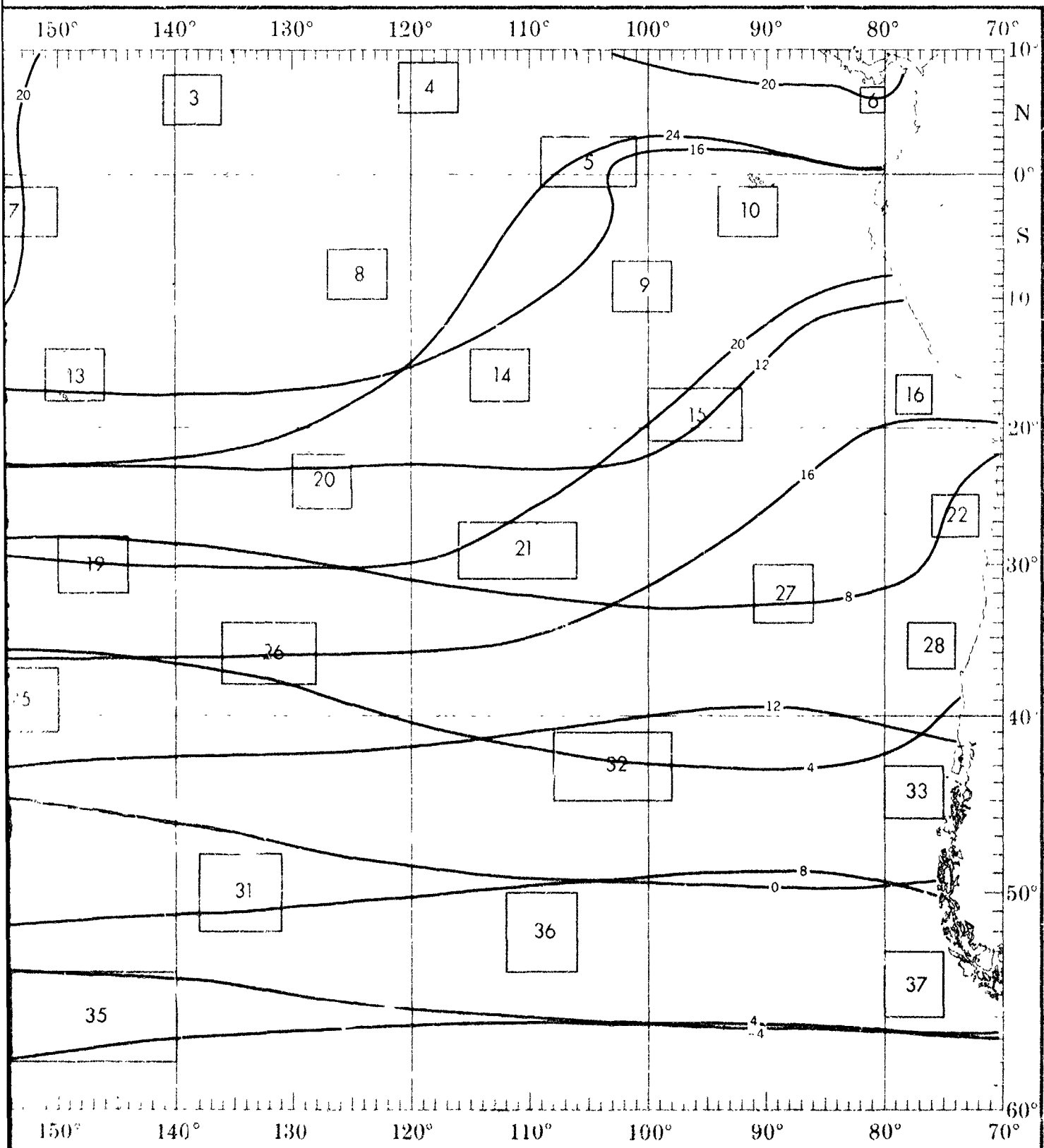
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HUMIDITY



WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale)

Wet bulb (°C)

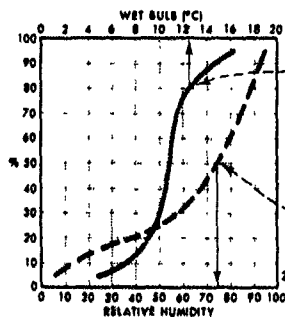
(80% of all observed wet-bulb temperatures were $\leq 12.5^{\circ}\text{C}$ or 54.5°F .)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale)

Relative humidity (%)

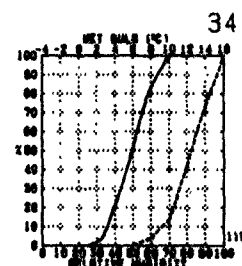
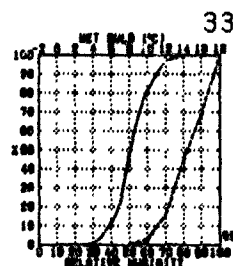
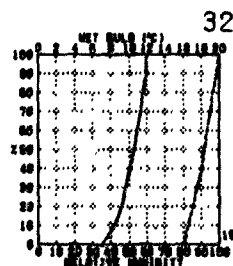
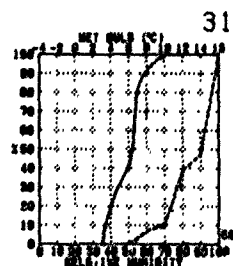
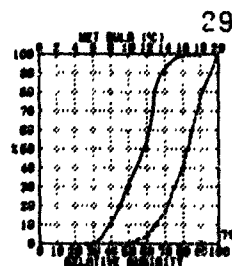
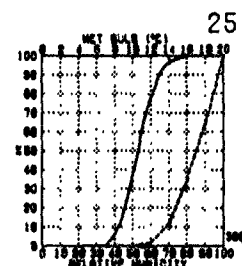
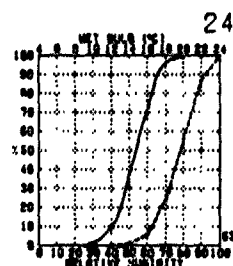
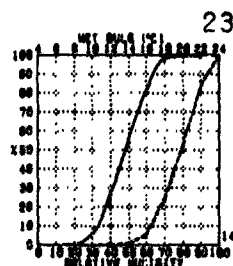
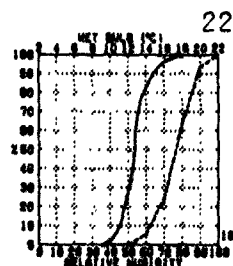
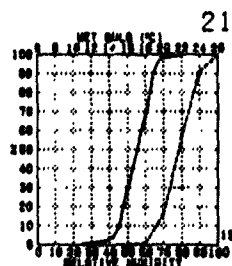
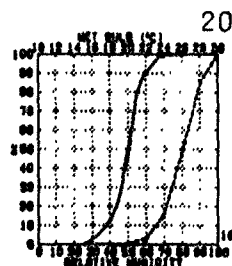
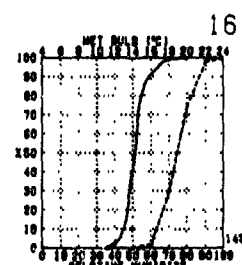
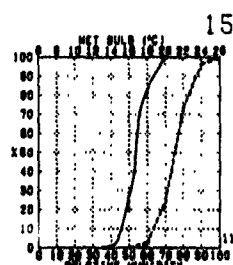
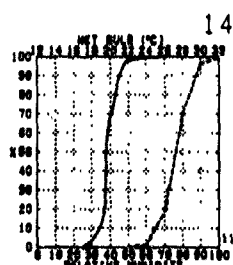
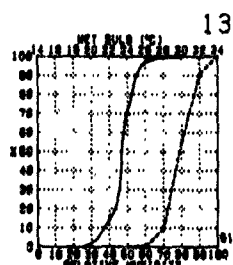
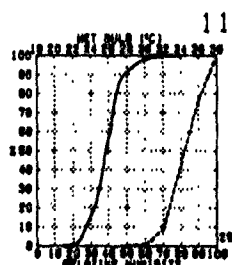
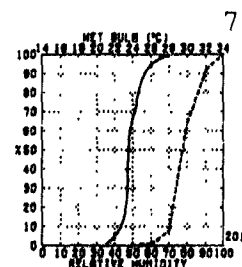
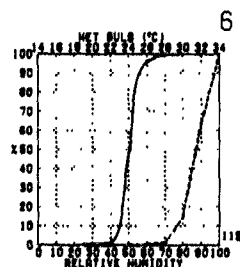
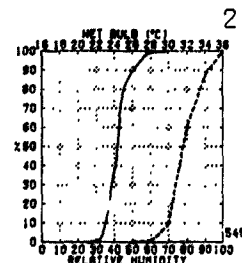
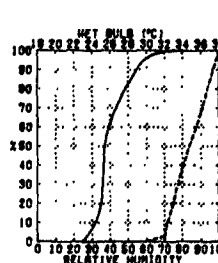
(50% of all observed relative humidities were $\leq 74\%$)

Number of observations



BLUE LINE - Minimum (1%) dew-point temperature (°C) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature (°C) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

IVE HUMIDITY

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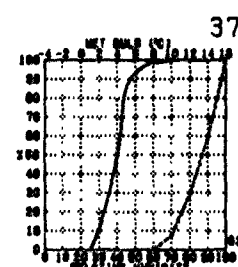
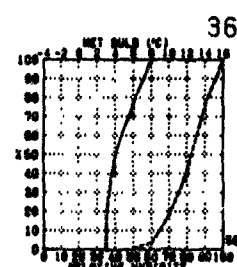
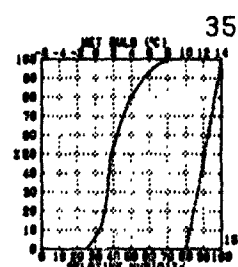
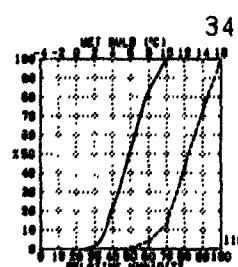
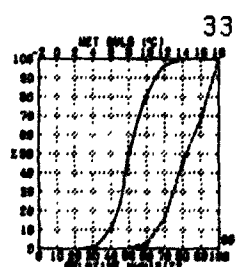
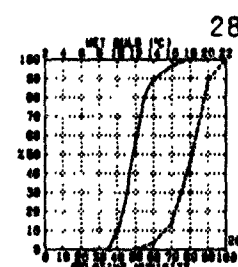
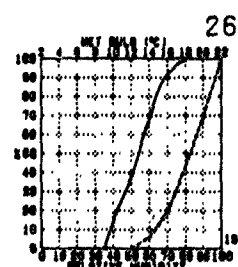
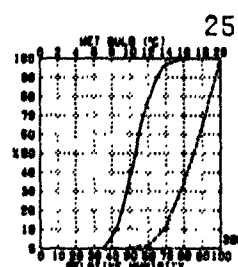
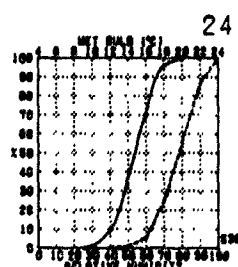
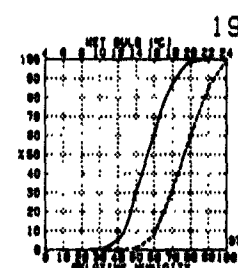
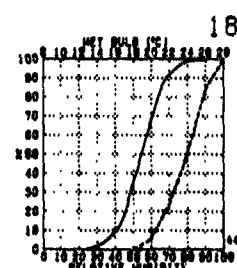
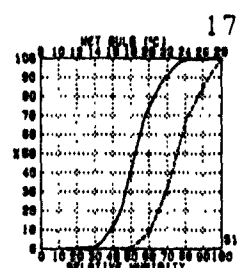
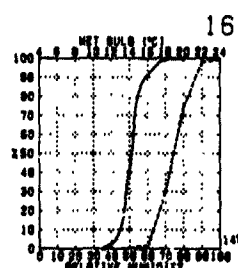
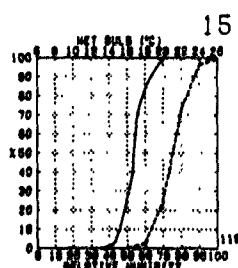
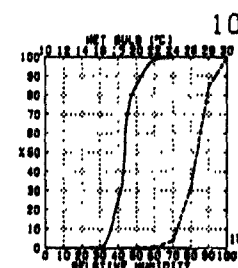
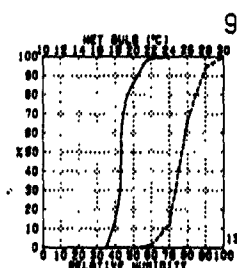
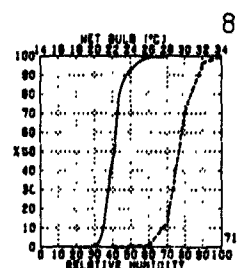
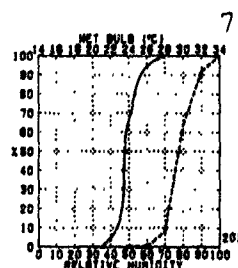
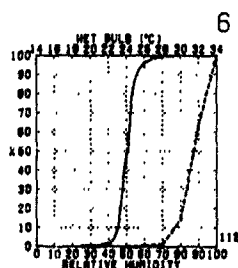
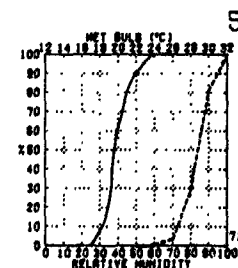
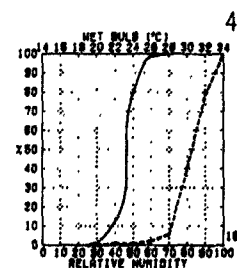
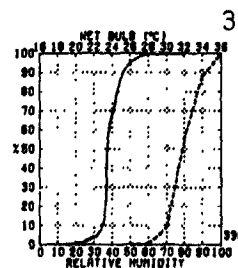
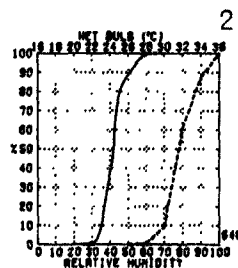
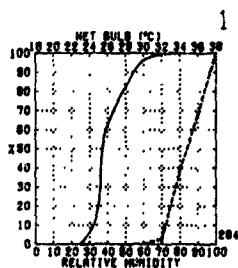
equal to or less than the

54.5°F.)

to or less than the humidity

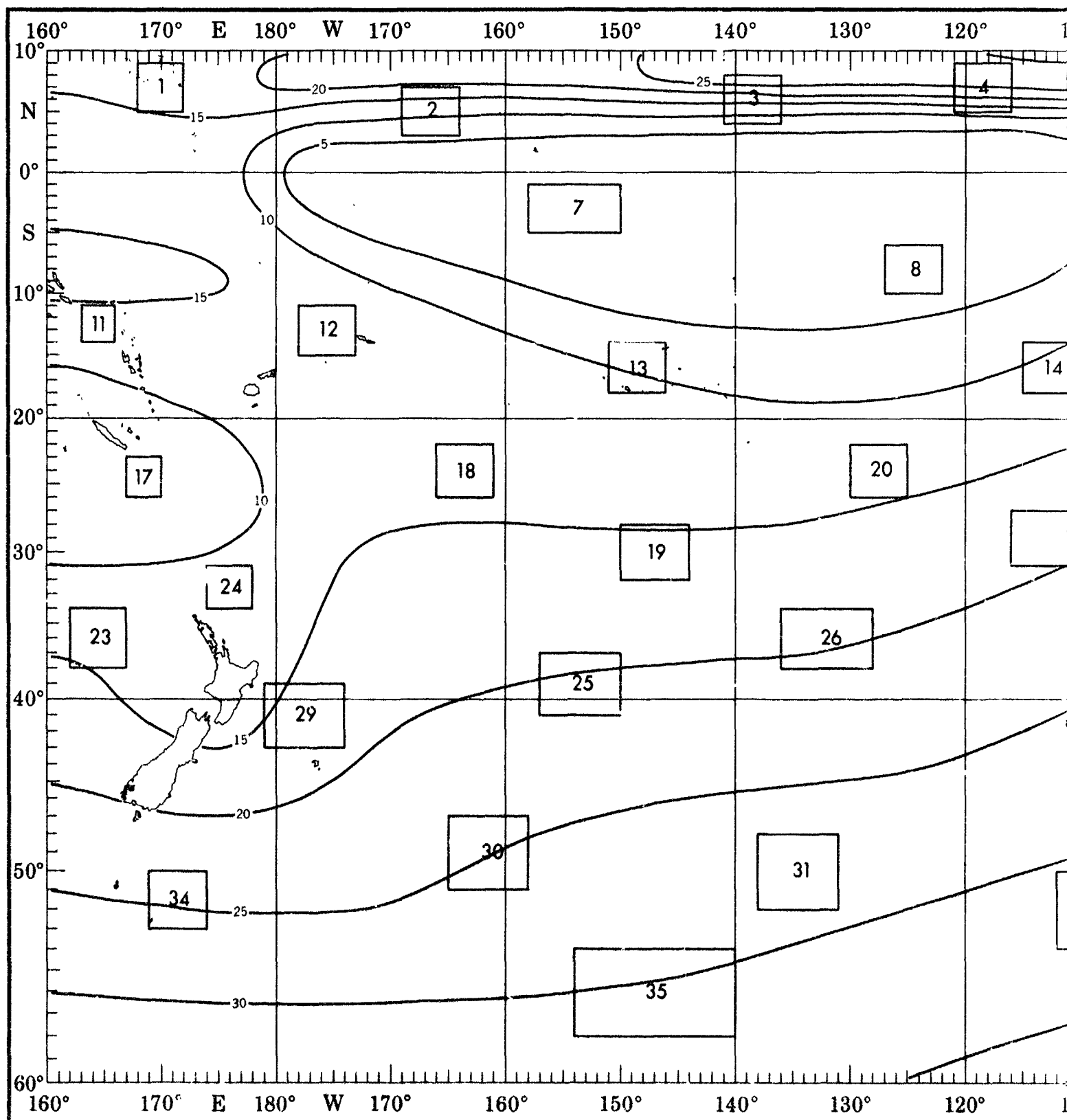
or less than the given

er than the given value)

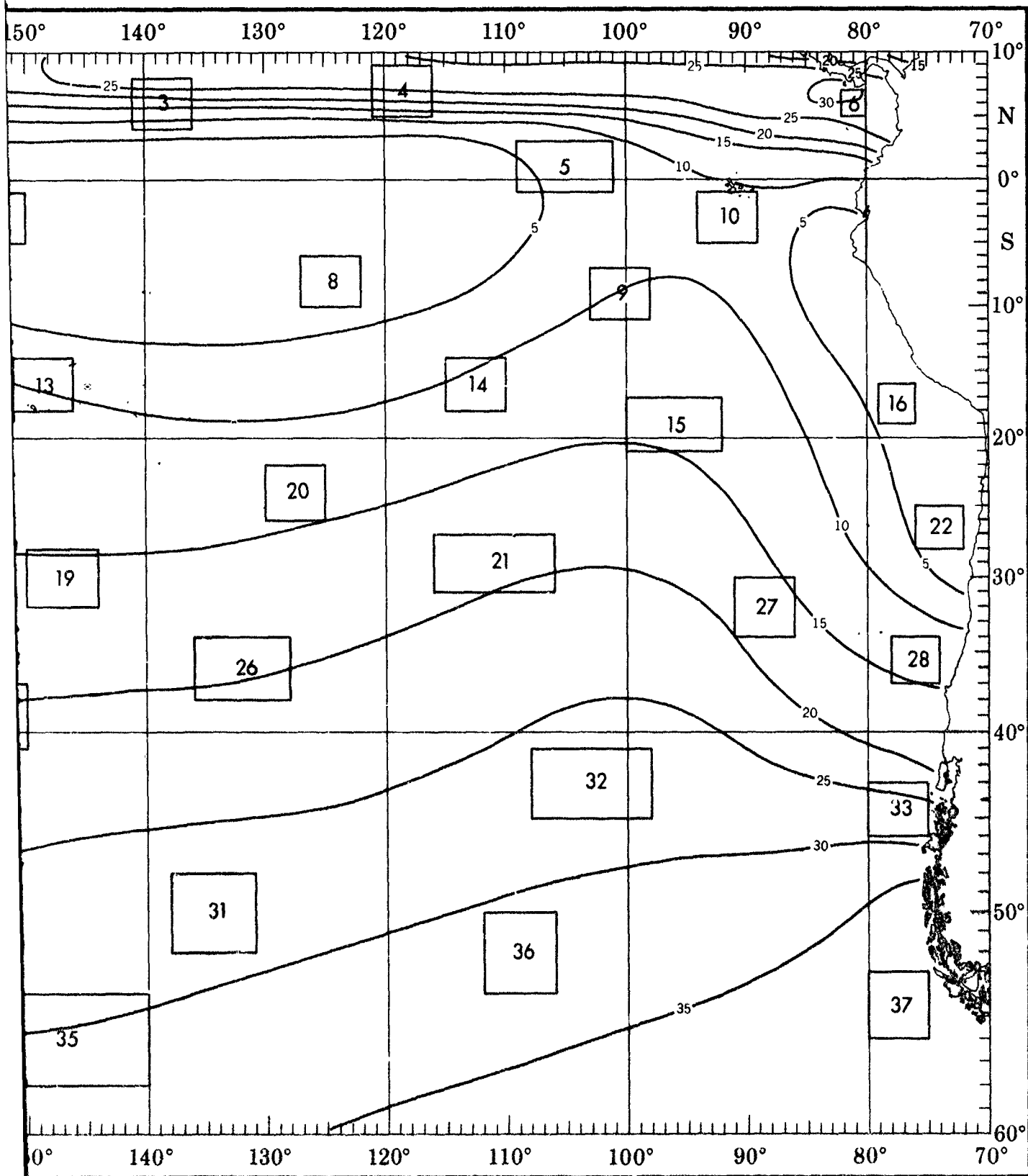


be objective compilation of available data for specified areas without regard to suspected biases.
s (opposite page) are based on all available data subjectively adjusted where bias was evident.

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PRECIPITATION

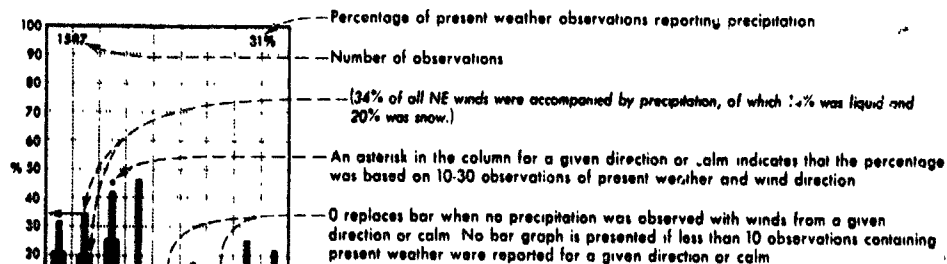


7 1 2

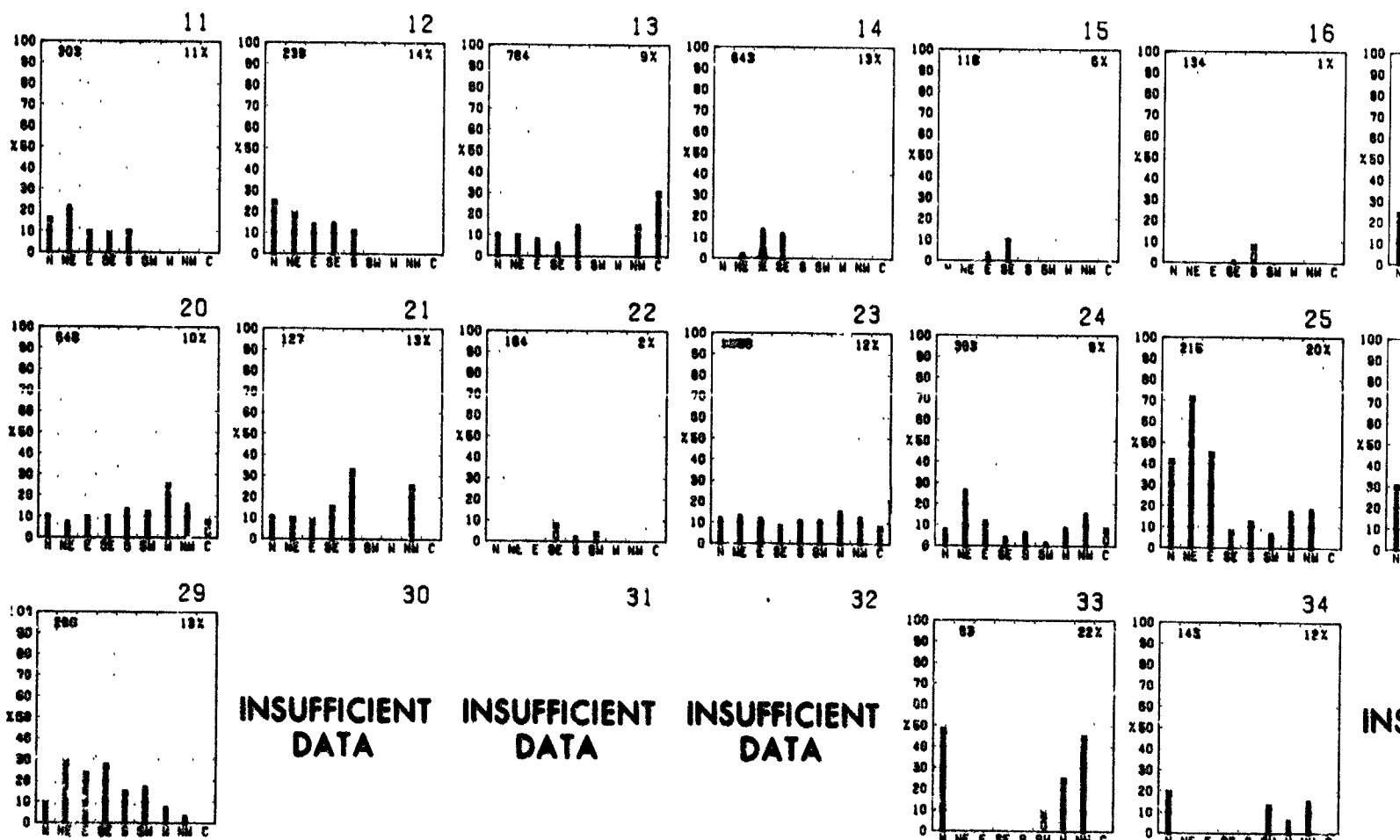
PRECIPITATION

% Pcpn
 % Liquid
 % Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to size. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

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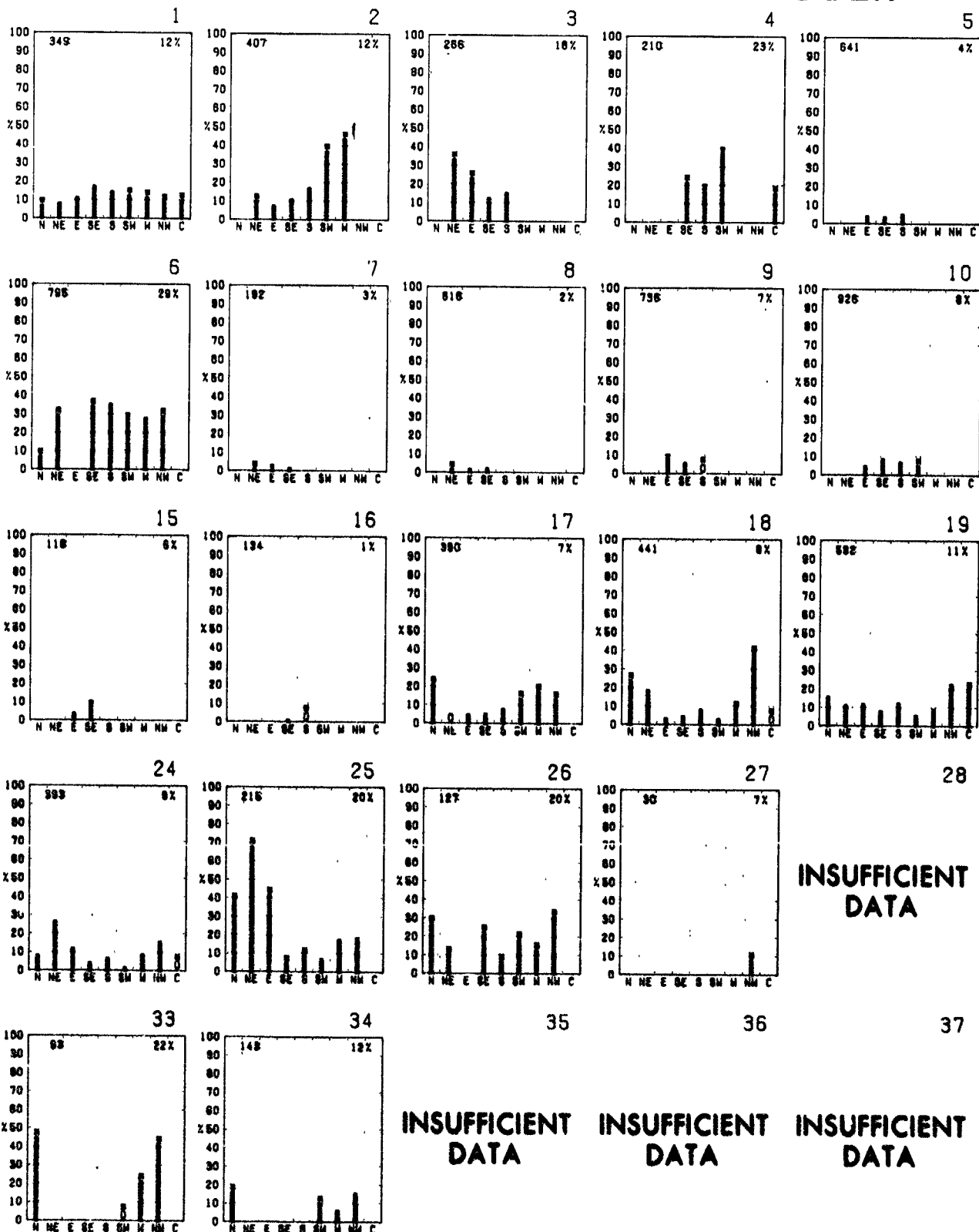
calm that were
izing rain and freezing

itation

th 14% was liquid and

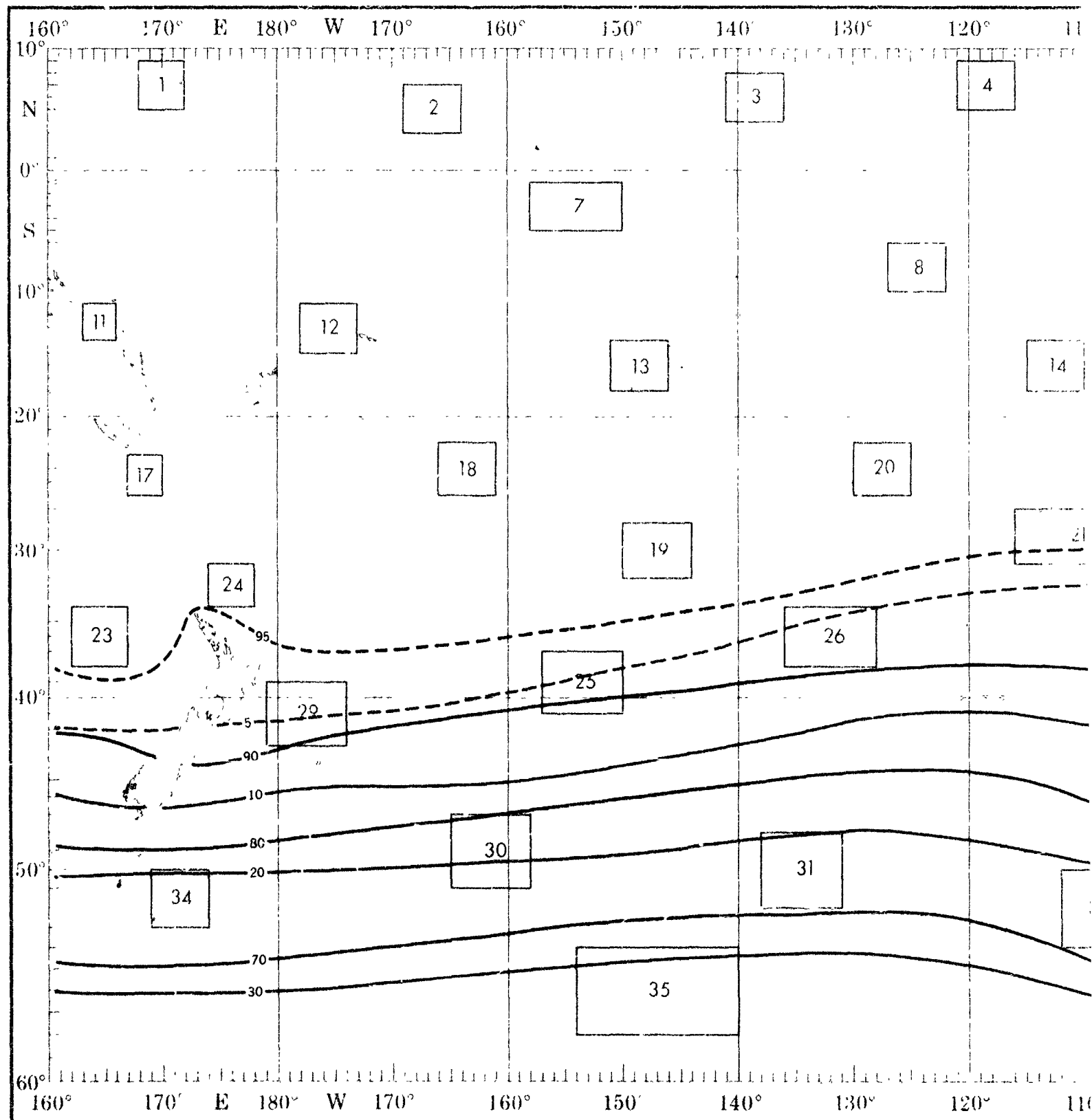
ates that the percentage
nd direction

ds from a given
bservations containing

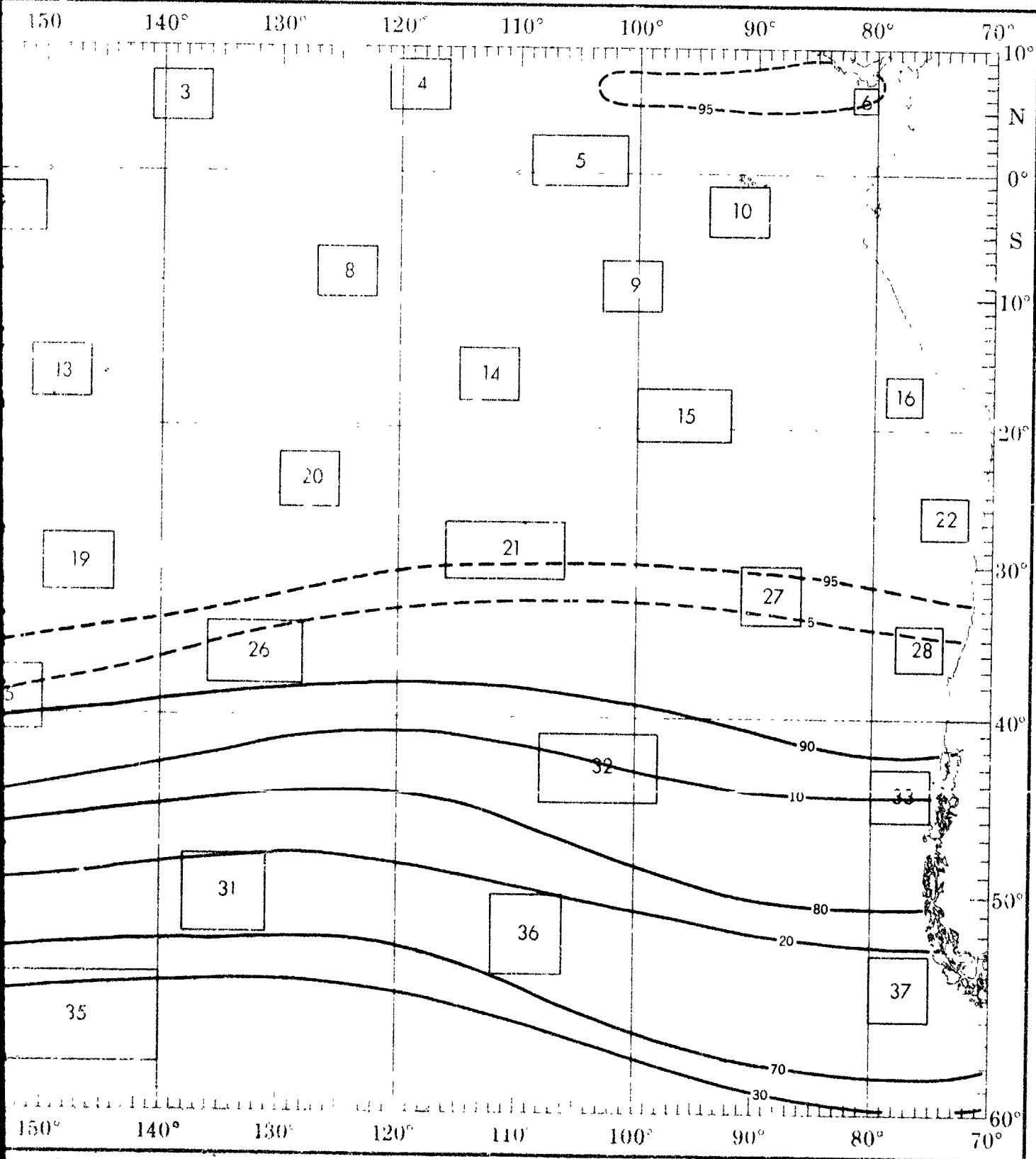


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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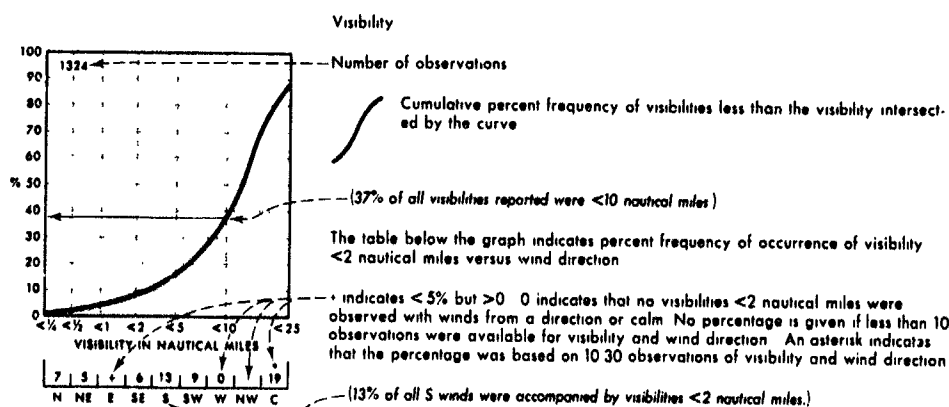
VISIBILITY



1

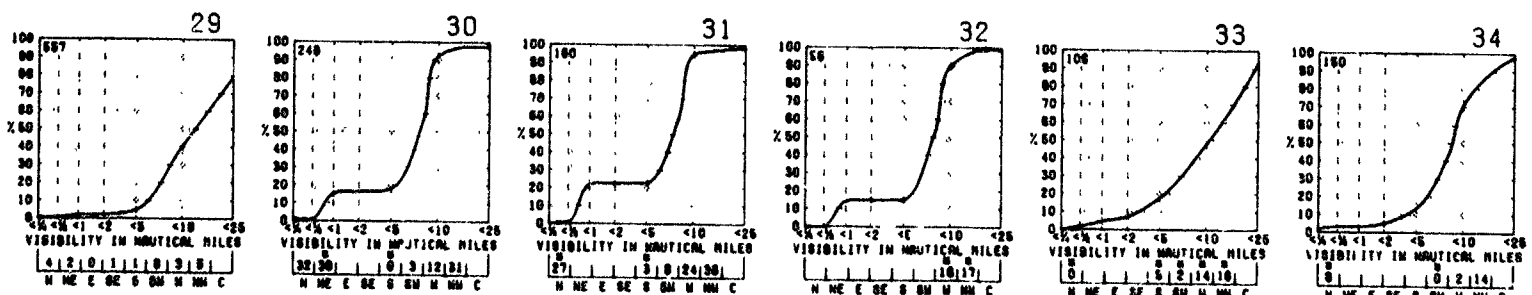
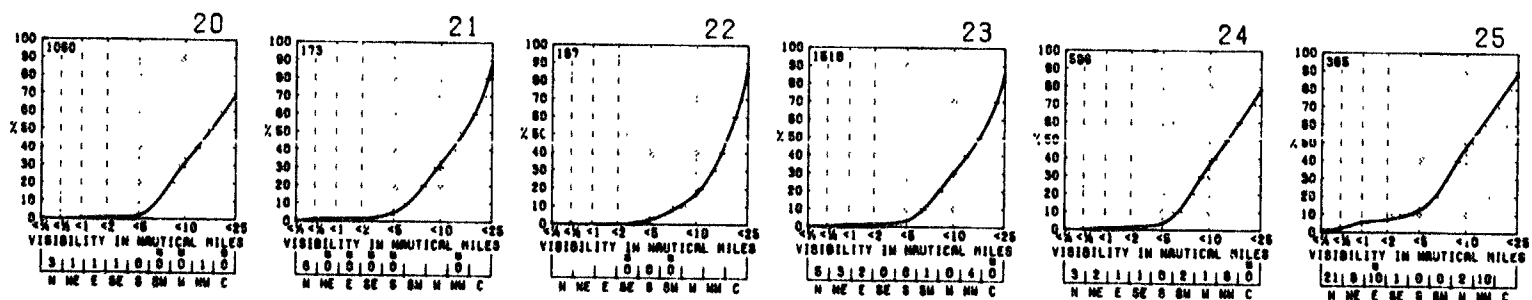
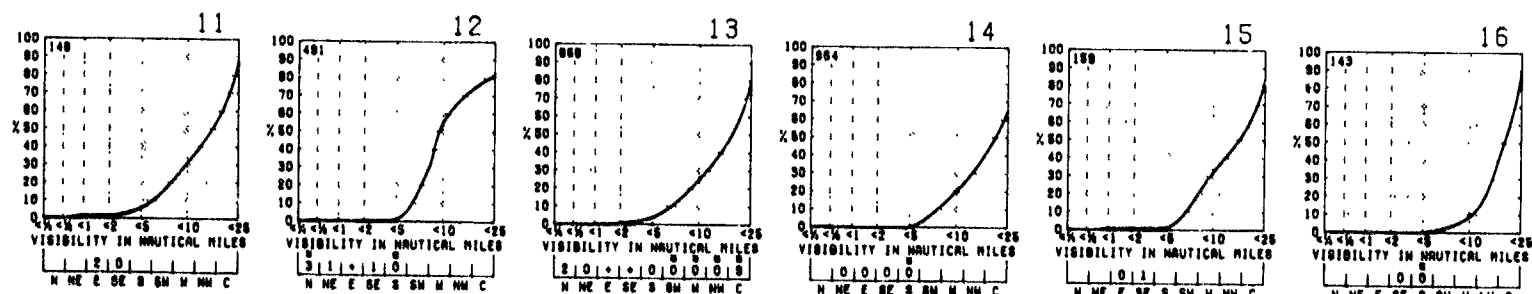
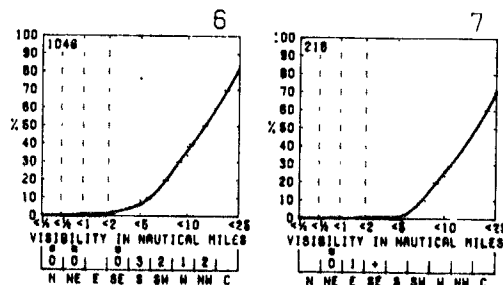
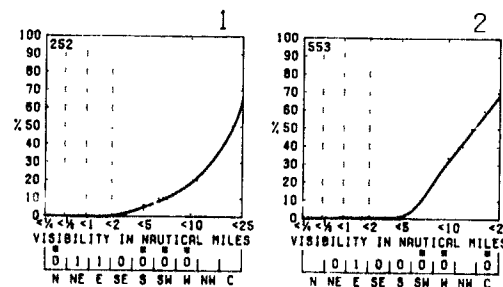
2

VISIBILITY



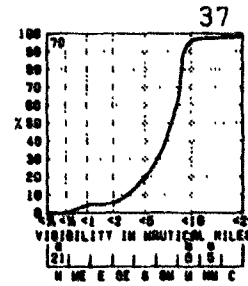
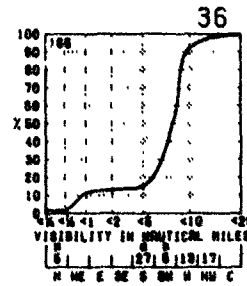
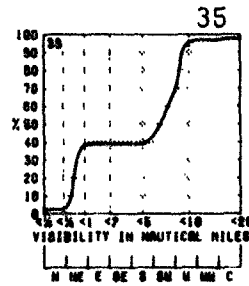
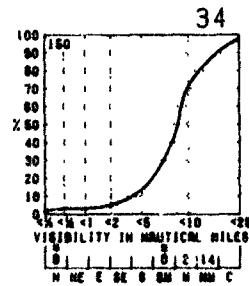
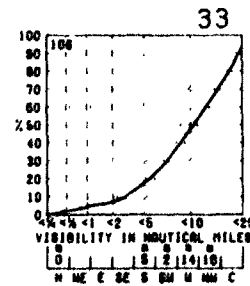
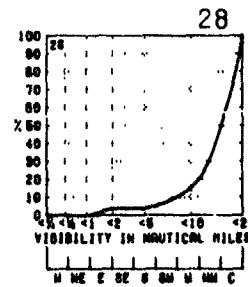
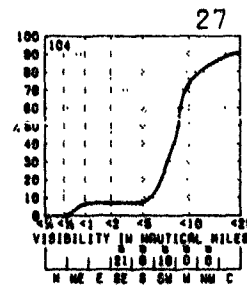
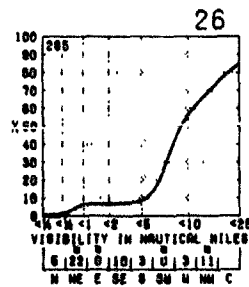
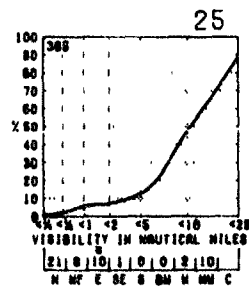
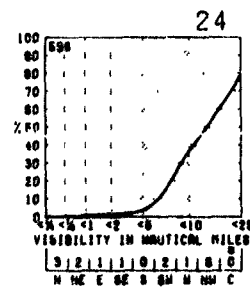
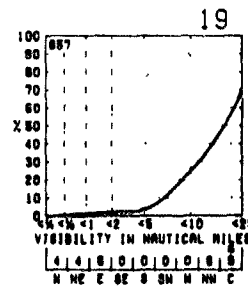
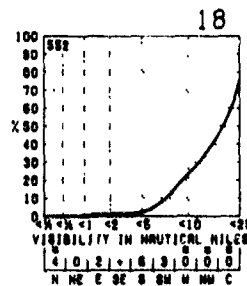
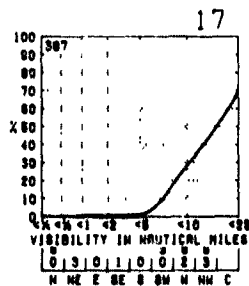
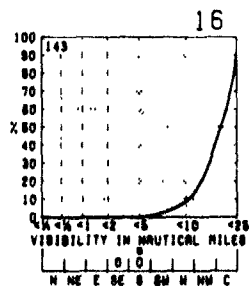
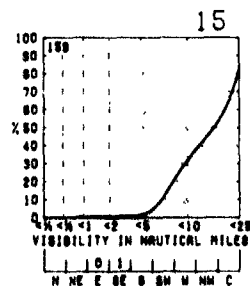
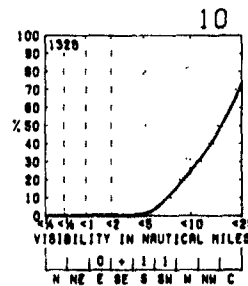
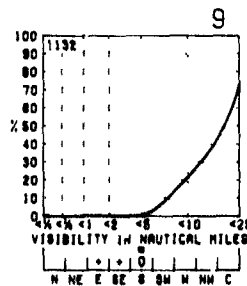
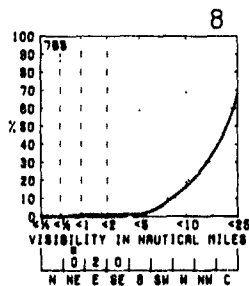
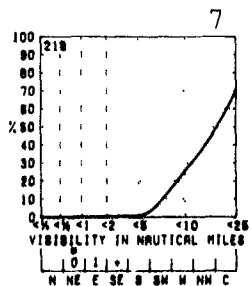
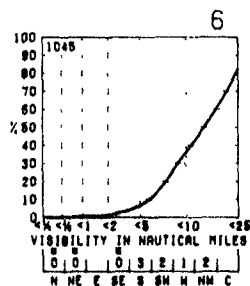
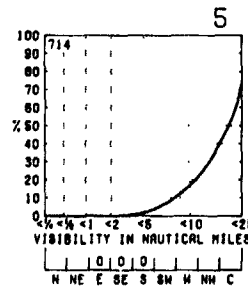
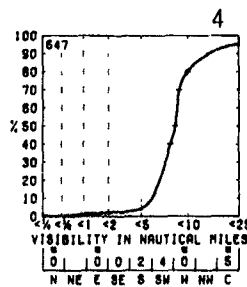
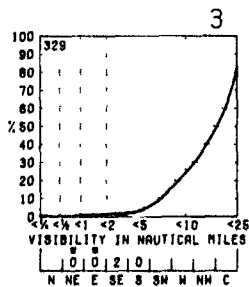
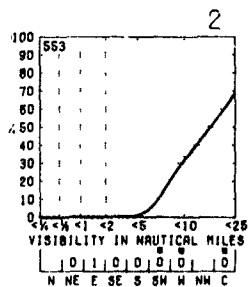
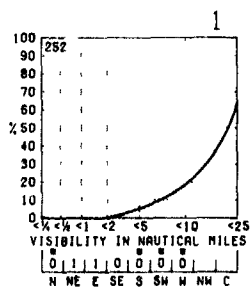
BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles

RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where I

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than the visibility intersect

occurrence of visibility

2 nautical miles were
stage is given if less than 10
on. An asterisk indicates
visibility and wind direction

cal miles)

• objective compilation of available data for specified areas without regard to suspected biases.
• (opposite page) are based on all available data subjectively adjusted where bias was evident.

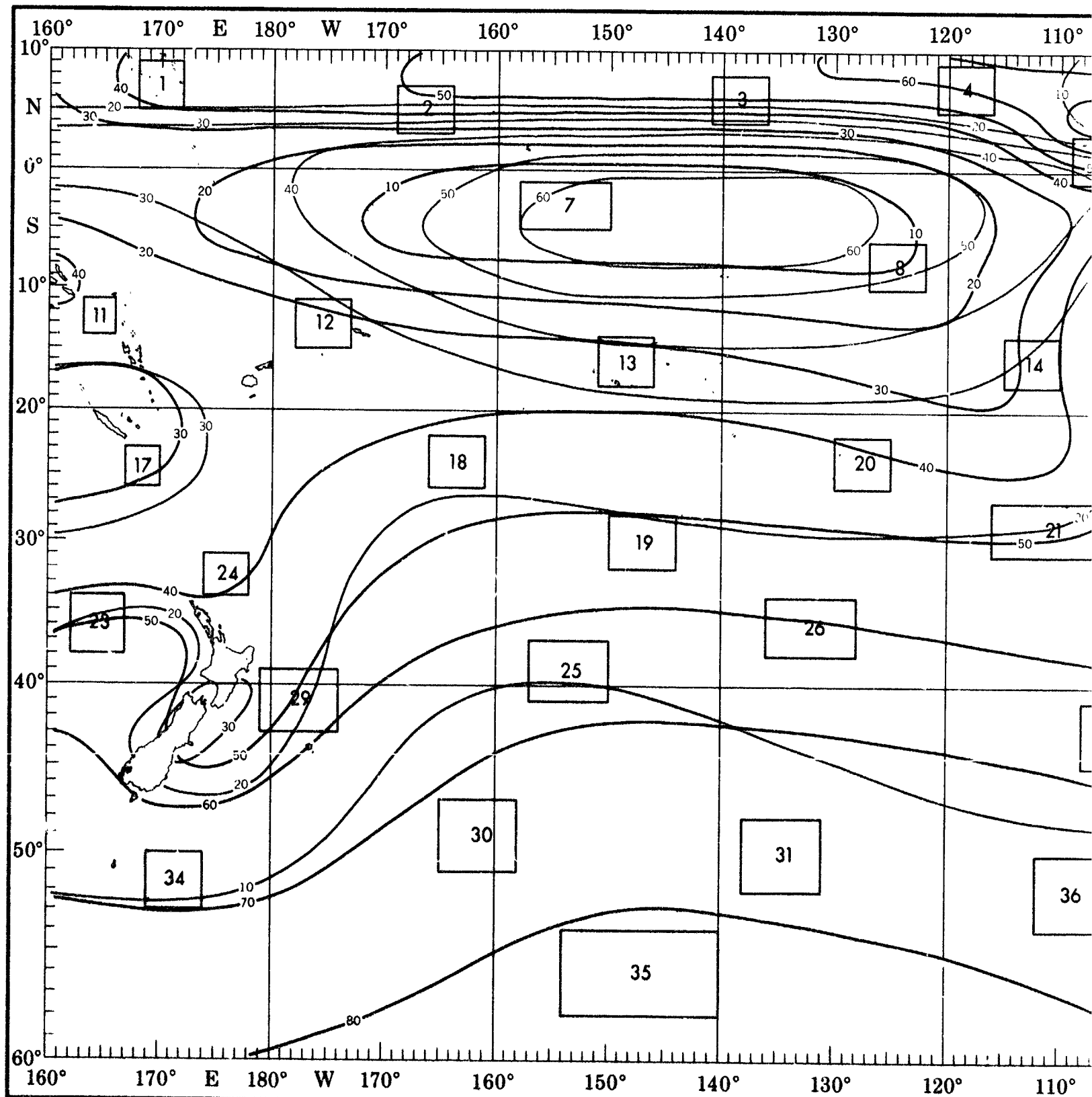
1

1

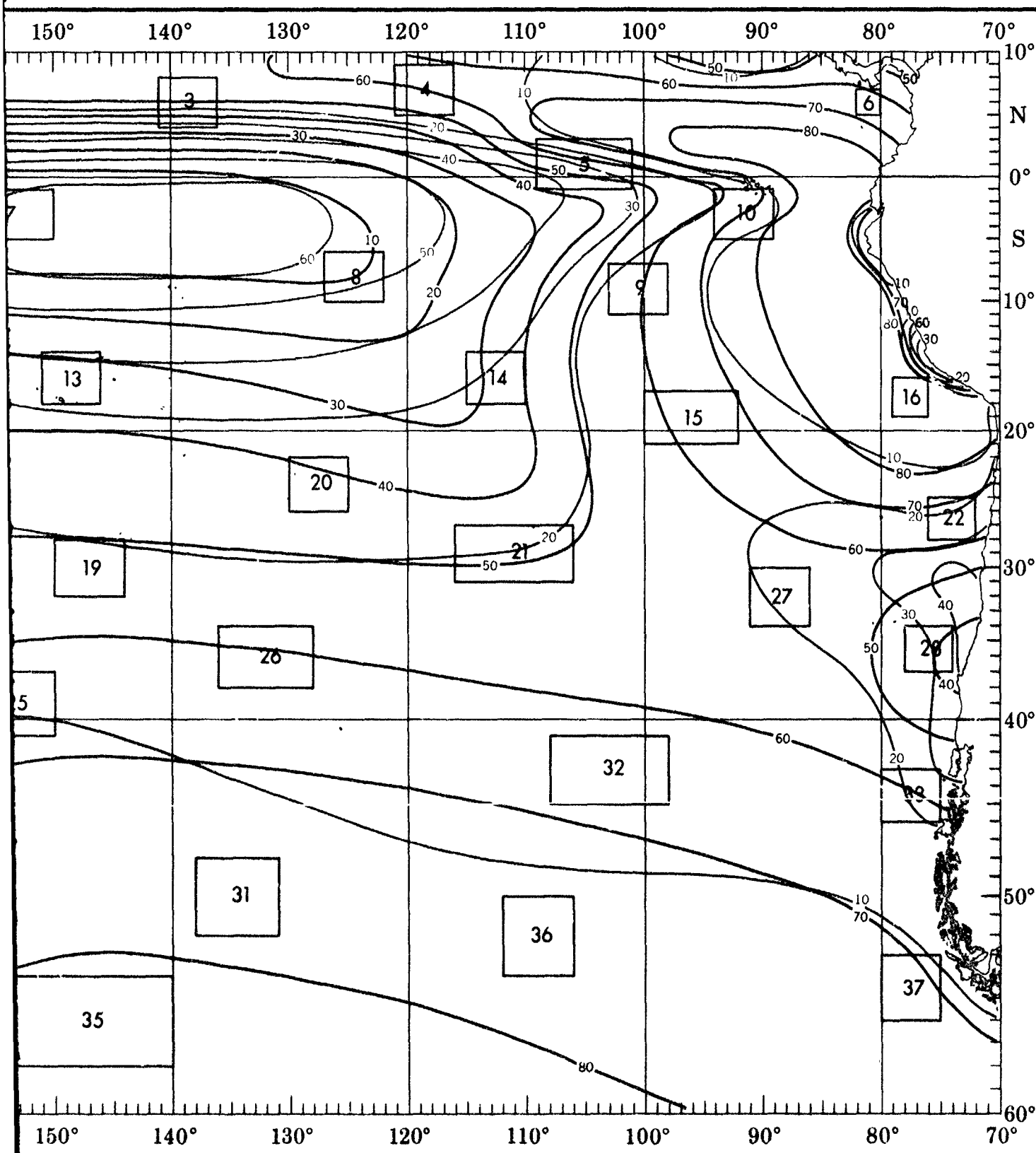
2

267

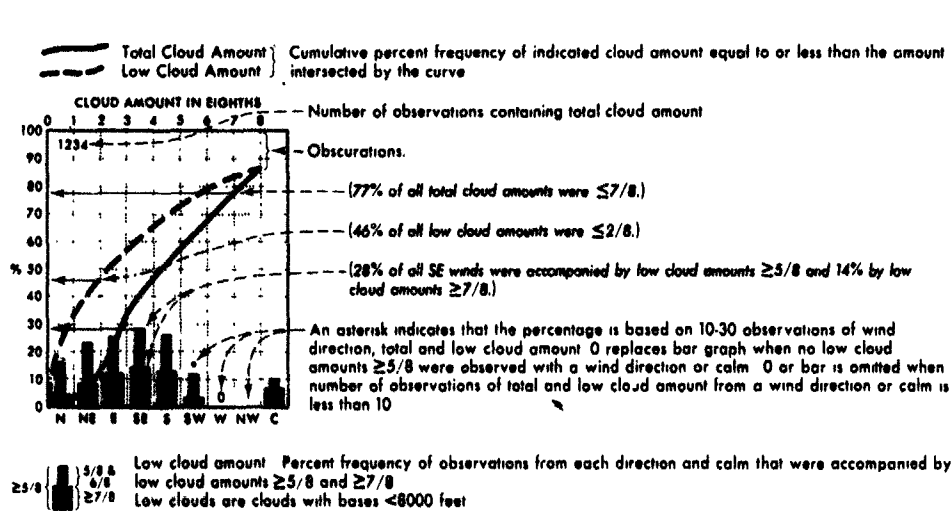
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CLOUD COVER

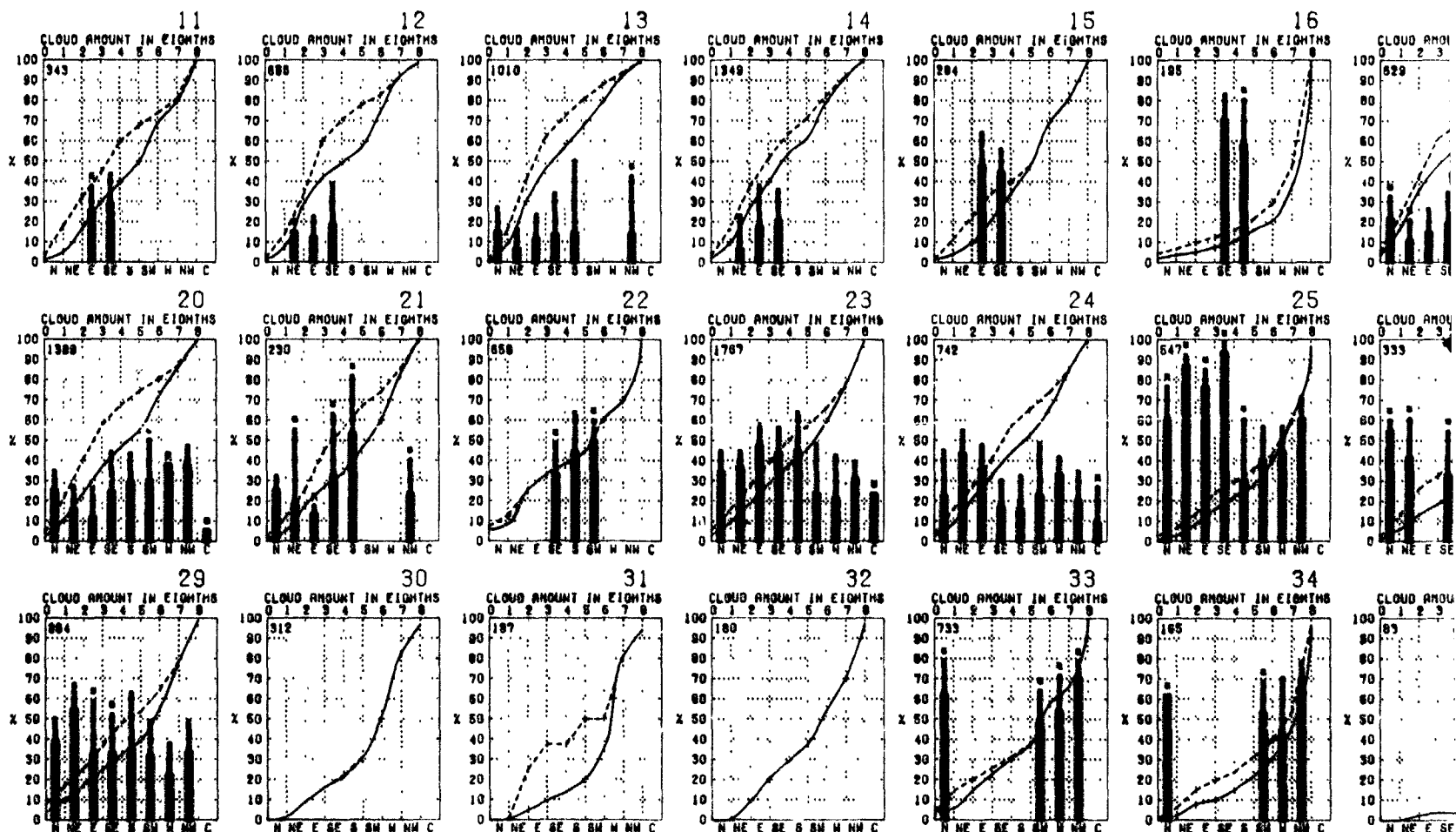


CLOUD COVER



BLUE LINE - Percent frequency of total cloud amount $\leq 2/8$

RED LINE - Percent frequency of low cloud amount $\geq 5/8$



Graphs represent the objective compilation of available data for specified areas without regard to suspected bias. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias was suspected.

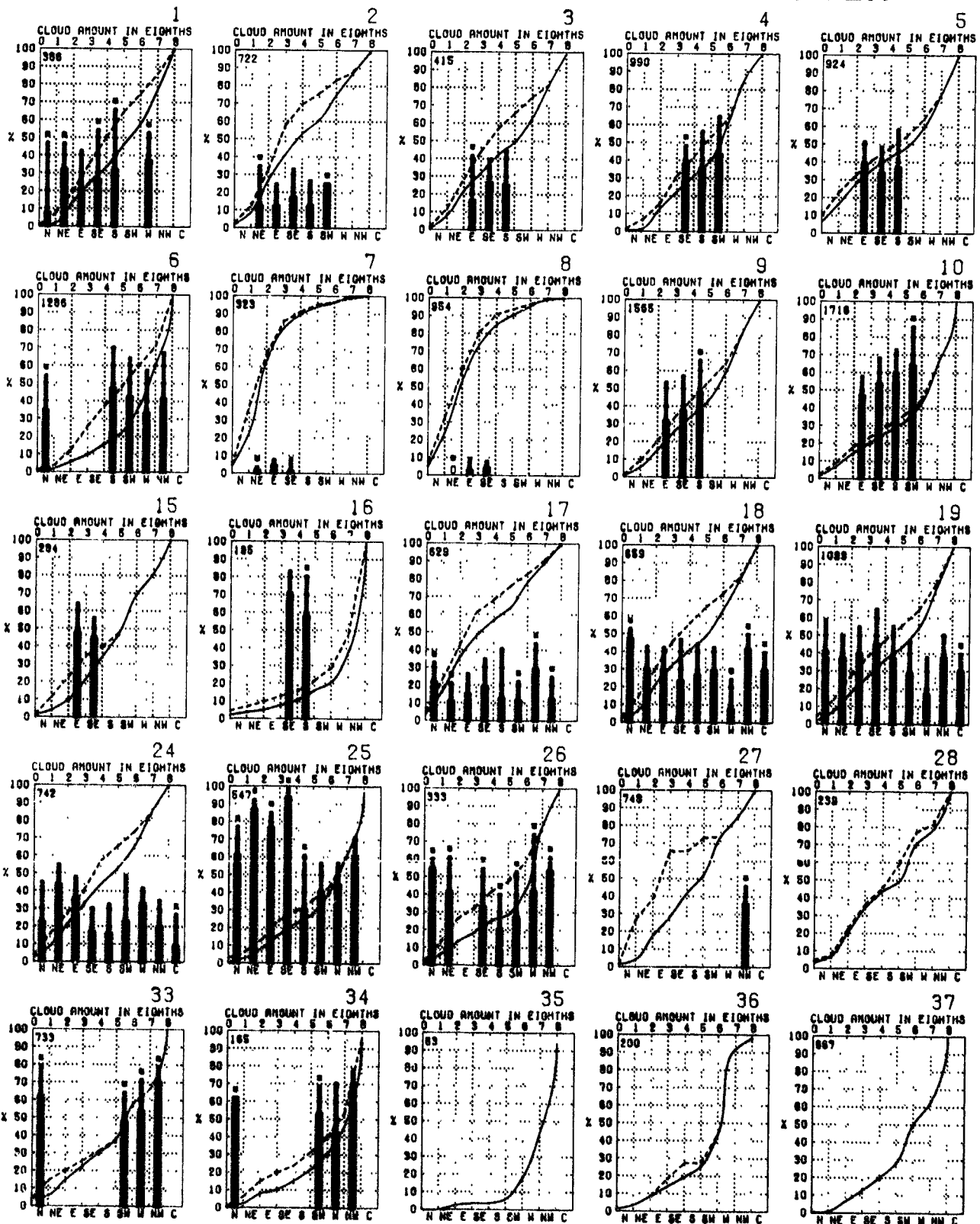
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to or less than the amount

≥ 5/8 and 14% by low

observations of wind
when no low cloud
0 or bar is omitted when
a wind direction or calm is

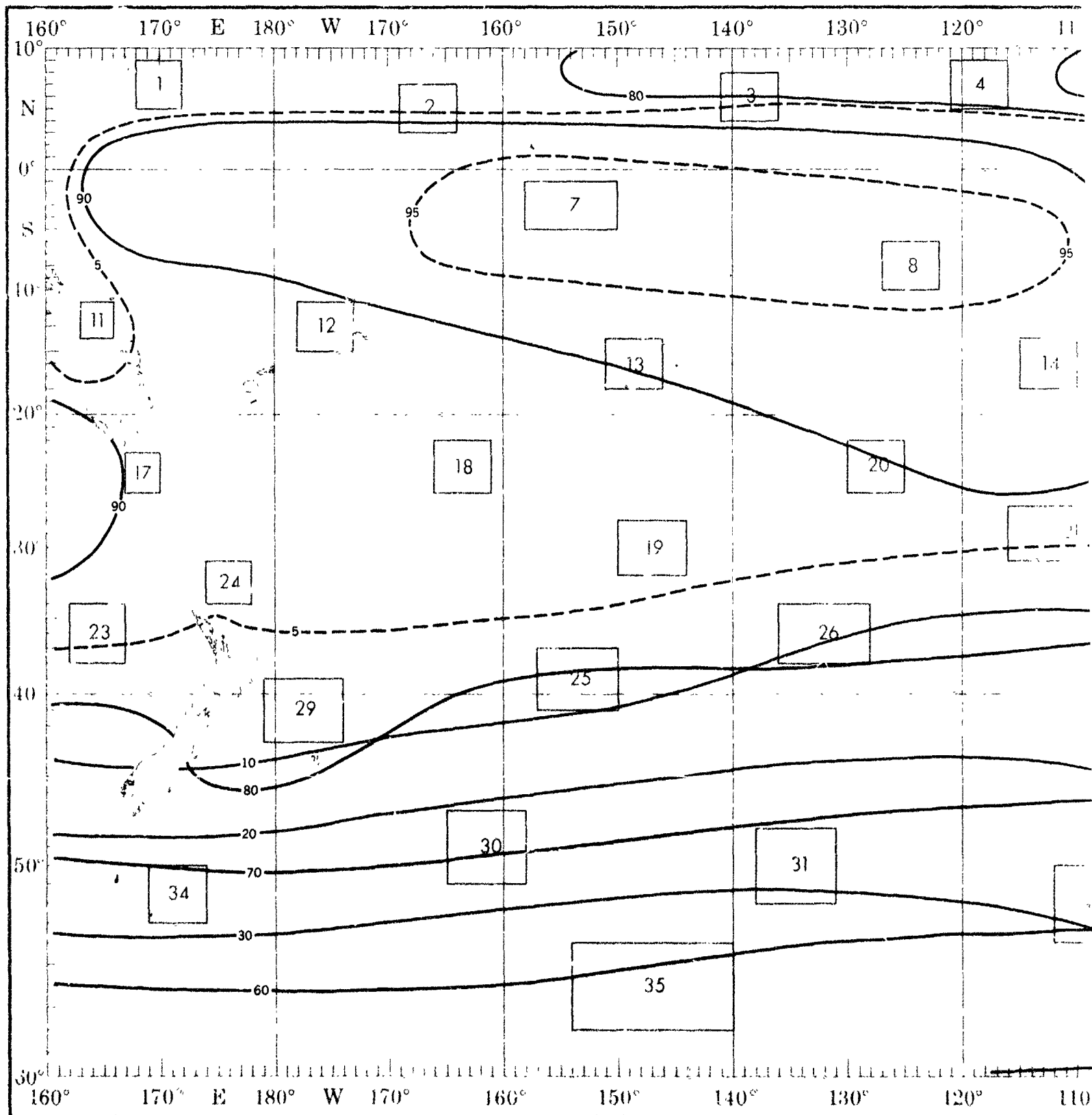
that were accompanied by



objective compilation of available data for specified areas without regard to suspected biases.
s (opposite page) are based on all available data subjectively adjusted where bias was evident.

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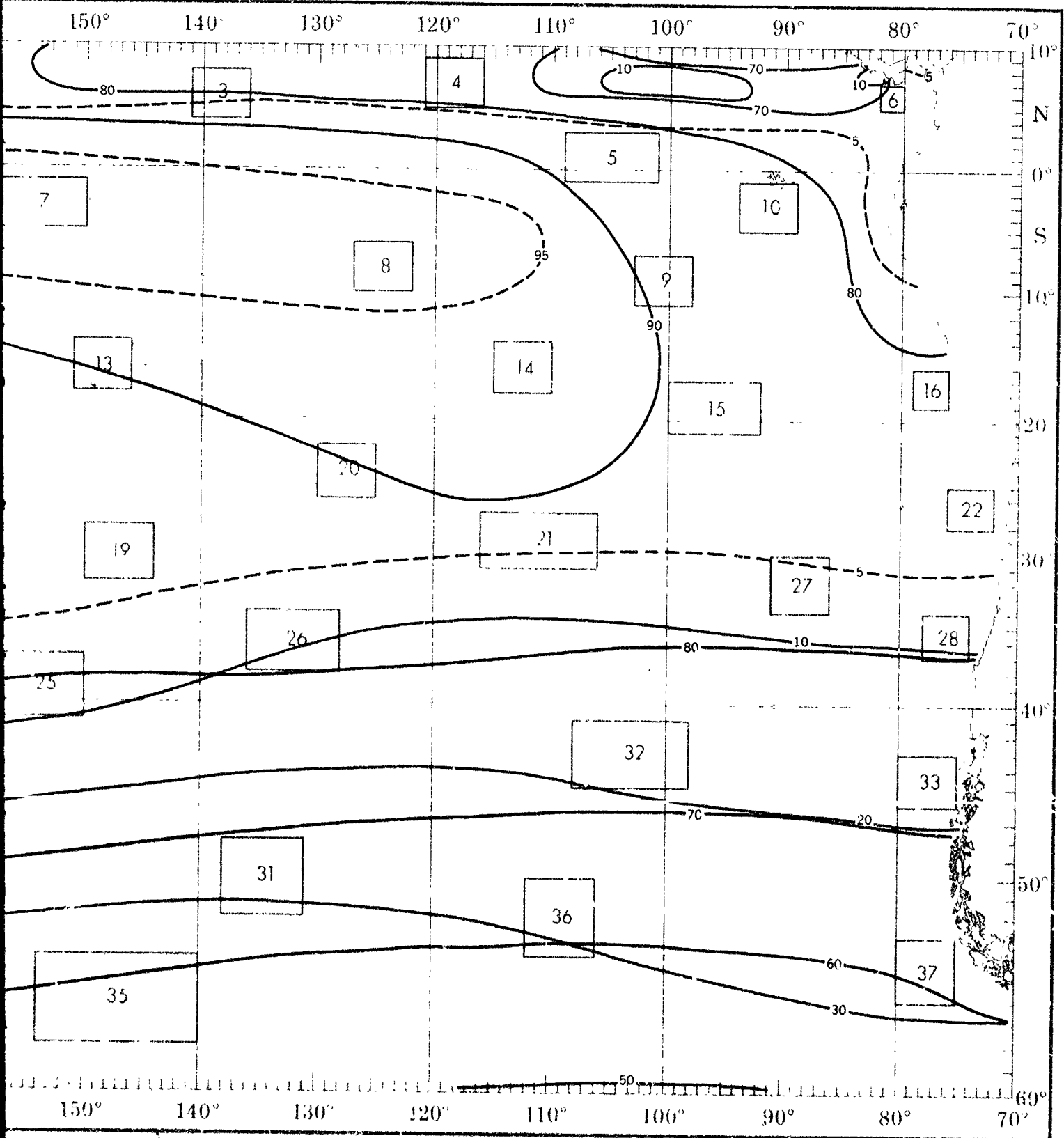
C



7

1

CEILING AND VISIBILITY



1

1

2

CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles)

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_L) is $\geq 5/8$

Obscurations are included under ceiling "0 <15"

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of N_t $< 5/8$

— (2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

..+ indicates < 5% but > 0

-Number of observations

		VISIBILITY						
		<1/2	1/2-1	1-2	2-4	4-6	6-10	≥10
LOW CLOUD CEILING	NC	0	0	4	3	13	64	
	30-80	0	0	0	0	0	1	
	35-80	0	+	0	0	0	4	
	30-435	0	+	1	1	2	2	
	10-670	0	+	1	1	2	1	
	6-410	0	1	0	0	+	2	
	2-66	+	+	0	0	+	0	
	13-63	+	0	0	0	0	0	
0-615	+	0	0	0	0	0		

		VISIBILITY						1
		<1/4	1/4	1/2	3/4	1	10	10
HC	0	0	0	0	1	4	45	
50<80	0	0	0	0	0	1	1	
35<50	0	0	0	0	0	0	1	
20<35	0	0	0	0	0	1	1	
10<20	0	0	0	0	1	2	13	
5<10	0	0	0	1	4	14		
3<5	0	0	0	0	2	1		
1.5<3	0	0	0	0	0	1		
0<1.5	0	0	0	1	0	1		

		VISIBILITY						
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CEILING	NC	0	0	0	1	3	6	
	50-80	0	0	0	0	0	0	
	35-50	0	0	0	0	0	2	
	20-35	0	0	0	0	1	6	
	10-20	0	0	0	0	2	6	
	5-10	0	0	0	0	2	5	
	3-5	0	0	0	0	1	1	
	1-3	0	0	0	0	0	1	
0-1	0	0	0	0	0	0		

		VISIBILITY						
		6 1/2	7 1/2	1 1/2	2-8	5-10	10-16	
LOW CLOUD CEILING	NC	0	0	0	+	4	34	
	50<80	0	0	0	0	+	+	
	35<80	0	0	+	+	1	2	
	80<85	0	0	0	+	2	8	
	10<80	0	0	0	1	6	17	
	0<10	+	+	1	2	6	12	
	3-8	0	0	0	1	2	1	
	1-5<3	0	0	0	+	+	+	
0<1.0	+	0	0	0	+	+		

	VISIBILITY					
	0 1/8	1/4	1/2	3/4	1	2 or more
NC	0	0	0	0	1	80
80<80	0	0	0	0	0	0
35<80	0	0	0	0	0	0
80<35	0	0	0	0	0	1
10<35	0	0	0	0	0	8
8<10	0	0	1	0	0	1
3<8	0	0	0	0	0	0
1-8<3	0	0	0	0	0	0
0-1-8	0	0	0	0	0	0

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles.

RED LINE - Percent frequency of low cloud ceiling <600 feet and/or visibility <2 nautical miles

		VISIBILITY					
		1/2	1/4	1/8	1/16	1/32	1/64
NC	0	0	0	0	4	5	52
50-50	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0
20-20	0	0	0	0	0	0	1
10-20	0	0	0	0	0	5	11
0-10	0	0	0	1	4	6	
3-0	0	0	0	2	2	1	
1.5-0	0	0	0	0	0	1	
0-1.5	0	0	0	0	0	0	

		VISIBILITY						12
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10	
MC		0	0	0	0	3	87	
30-00		0	0	0	0	0	0	
30-00		0	0	0	0	1	0	
20-05		0	0	0	0	0	0	
10-20		0	0	0	0	3	19	
0-10		0	0	0	1	2	8	
0-0		0	0	0	0	0	1	
1-5-0		0	0	0	0	0	0	
0-10		0	0	7	1	0	0	

		VISIBILITY							13
		<1/4	1/4-1	1-3	3-8	>8	10-10		
LOW CLOUD CEILING	MC	0	0	0	+	7	88		
	30-90	0	0	0	0	+	+		
	35-60	0	0	0	+	+	+		
	35-30	0	0	0	+	2	4		
	10-10	0	0	+	1	3	8		
	0-10	0	0	0	1	1	3		
	0-40	0	+	0	+	0	1		
	1-5-3	0	0	0	0	0	0		
0-1-5	0	0	0	0	0	0			

		VISIBILITY					
		<1/8	1/8	1/4	1/2	3/4	1.0
NO		0	0	0	0	1	62
50-99		0	0	0	0	0	2
35-49		0	0	0	0	+	4
20-34		0	0	0	+	1	7
10-19		0	0	0	+	1	14
0-9		0	0	0	+	1	7
3-4		0	0	0	0	0	1
1.5-3		0	0	0	0	+	0
0-1.5		0	0	0	0	0	+

		VISIBILITY						15
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1 or more	
LOW CLOUD CEILING	MC	0	0	0	0	5	98	
	30-60	0	0	0	0	0	0	
	30-60	0	0	0	0	2	0	
	20-30	0	0	0	0	0	7	
	10-20	0	0	0	0	0	22	
	0-10	0	0	0	0	7	100	
	3-5	0	0	0	0	0	1	
	1-5	0	0	0	0	0	0	
0-1.5	0	0	0	0	0	0		

		VISIBILITY						16
		<1/4	1/4-1/2	1/2-1	1-2	2-5	5-10	
LOW CLOUD CEILING	NC	0	0	0	0	0	0	14
	50-60	0	0	0	0	0	0	5
	30-50	0	0	0	0	0	5	5
	20-30	0	0	0	0	0	1	23
	10-20	0	0	0	0	0	0	34
	0-10	0	0	0	0	0	3	14
	3-6	0	0	0	0	0	0	2
	1-3-5	0	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0	0	

		VISIBILITY							20
		<1/4	1/4	1/2	3/4	4/5	5/8		
LOW CLOUD CELLING	NC	0	0	0	0	0	2	68	
	50-60	0	0	0	0	+	+		
	30-50	0	0	0	0	1	2		
	50-55	0	0	0	+	+	7		
	10-20	0	0	+	+	2	10		
	5-10	0	0	+	+	1	5		
	3-5	0	+	1	+	+	0		
	1-3	0	0	0	0	0	0		
0-1	0	0	0	0	0	0			

		VISIBILITY						21
		1/4	1/2	3/4	1	10	10	
MC		0	0	0	0	3	54	
00-00		0	0	0	0	0	0	
00-00		0	0	0	0	0	0	
00-00		0	0	0	0	0	0	
00-00		2	1	0	1	2	7	
00-00		0	0	0	2	2	1	
0-0		0	0	0	0	0	0	
1-0-0		0	0	0	0	0	0	
0-1-0		0	0	0	0	0	0	

		VISIBILITY							22
		<1/4	1/4-1/2	1/2	3/4	1-1/2	10		
LOW CLOUD CEILING	NC	0	0	0	0	4	53		
	30-50	0	0	0	0	0	2		
	35-60	0	0	0	0	0	3		
	50-55	0	0	0	1	1	10		
	10-50	0	0	0	0	3	21		
	5-10	0	0	0	1	1	10		
	5-50	0	0	0	0	0	2		
	1-5-5	0	0	0	0	0	1		
0-1-5	0	0	0	0	0	0	155		

		VISIBILITY						23
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	>3/4	010	
LOW CLOUD CELLING	NC	0	0	0	+	3	47	
	00-00	0	0	0	+	+		
	05-00	0	0	0	0	+	1	
	00-05	0	0	0	0	+	2	7
	10-00	0	0	+	+	3	19	
	00-10	+	0	+	1	4	7	
	3-0	+	+	+	+	1	1	
	1-0-3	0	0	0	0	0	0	
0-1-0	+	0	0	0	+	+		
								1130

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	6 or more
LOW CLOUD CELLING	NC	+	0	0	1	3	54
	80-90	0	0	0	0	+	1
	50-60	0	0	0	0	0	1
	20-30	0	0	0	0	1	0
	10-20	0	0	0	1	4	10
	5-10	0	0	+	1	1	0
	0-5	0	+	0	1	1	1
	0-1.5	+	0	0	0	0	0

		VISIBILITY					
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-3	3-10
LOW CLOUD CEILING	NC	+	0	0	0	2	28
	50-99	0	0	0	0	+	1
	99-999	0	0	0	0	2	3
	999-9999	+	0	1	1	2	7
	100-200	0	0	0	2	6	21
	200-400	0	0	0	1	3	5
	400-800	+	0	0	3	2	+
	800-1000	0	0	0	1	0	0
0-1.6	2	0	0	0	0	0	

		VISIBILITY							29
		<1/2	1/2-1	1-2	2-5	>5	all		
LOW CLOUD CELLING	NC	0	0	0	0	3	46		
	50-80	0	0	0	0	0	*		
	80-90	0	0	0	0	1	4		
	90-95	0	0	0	0	1	12		
	100-9	0	0	0	0	4	15		
	0-10	0	0	0	1	1	7		
	0-5	0	0	0	1	0	1		
	1-1/2	0	0	0	1	0	0		
0-1/2	0	0	0	0	0	0			

[illegible]

31

**INSUFFICIENT
DATA**

32

**INSUFFICIENT
DATA**

		VISIBILITY							33
		<1/2	1/2-1	1-2	2-5	5-10	10-15		
MC		0	0	0	0	5	25		
50-60		0	0	0	0	0	1		
30-50		0	0	0	1	1	2		
20-30		0	0	0	1	10	8		
10-20		0	0	0	5	8	7		
0-10		0	0	0	2	5	10		
3-5		0	0	0	1	1	2		
1-3		0	0	1	0	0	0		
0-1		0	0	0	2	1	0		

		VISIBILITY						34
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CEILING	NC	0	0	1	1	20	0	
	50-99	0	0	0	0	0	0	
	80-99	0	0	0	0	0	1	
	80-99	0	0	0	0	0	19	
	10-99	0	0	1	0	15	0	
	6-10	1	0	0	0	1	1	
	3-5	0	0	0	1	0	0	
	1-5	0	0	0	0	0	0	
0-1	3	0	0	1	1	0	140	

**INSUFFICIENT
DATA**

**INSUFFICIENT
DATA**

IN:

Graphs represent the objective compilation of available data for specified areas without regard to size. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias

OCTOBER

ITY

cloud ceilings (hundreds of feet)

clouds (h) when low cloud amount

occurrences of $N_h < 5/8$

Simultaneously with visibility ≥ 5 but < 10

nd visibility ≥ 5 nautical miles

al miles

		VISIBILITY						1
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1.0	1.0-10	
LOW CLOUD CEILING	NC	0	0	0	1	4	45	
	50-99	0	0	0	0	1	1	
	38-49	0	0	0	0	0	1	
	20-38	0	0	0	0	1	1	
	10-20	0	0	0	1	2	19	
	8-10	0	0	0	1	4	14	
	3-8	0	0	0	0	2	1	
	1-3	0	0	0	0	0	1	
	0-1.8	0	0	0	1	0		161

		VISIBILITY							2
		<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	≥10		
LOW CLOUD CEILING	NC	0	0	0	1	3	67		
	50-80	0	0	0	0	0	+		
	35-50	0	0	0	0	+	2		
	20-35	0	0	0	0	1	6		
	10-20	0	0	0	0	2	8		
	0-10	0	0	0	+	2	5		
	3-6	0	0	0	+	1	1		
	1-3	0	0	0	0	0	1		
	0-1.5	0	0	0	0	0	0	256	

		VISIBILITY							3
		<1/2	1/2-1	1-2	2-5	>5	10	≥10	
LOW CLOUD CEILING	NC	0	0	0	0	2	56		
	80-89	0	0	0	0	+	+		
	35-59	0	0	0	0	1	1		
	20-34	0	0	0	3	1	9		
	10-19	0	0	0	0	2	12		
	5-9	+	+	+	1	1	12		
	3-4	0	0	0	+	1	2		
	1-2	0	0	0	0	0	0		
	0-1	0	0	1	0	+	0		
									232

		VISIBILITY							4
		<1/2	1/2-3/4	1/2	2/3	3/4	1	10	
LOW CLOUD CEILING	NC	1	0	0	0	2	5	35	
	80-99	0	0	0	0	0	0	1	
	35-59	0	0	0	1	1	2		
	20-35	0	0	1	1	2	3		
	10-20	0	0	1	2	8	9		
	5-10	0	0	1	2	6	12		
	3-5	0	0	1	1	1	1		
	1-3	0	0	0	0	0	1		
	0-1.5	0	1	1	1	0	1		
								175	

		VISIBILITY					
		<1/2	1/2-1	1-2	2-4	4-10	>10
MC		0	0	0	+	2	46
58-80		0	0	0	+	+	1
36-50		0	0	0	0	1	3
20-35		0	0	0	+	2	7
10-20		0	3	3	1	3	22
6-10		0	0	0	1	1	8
3-6		0	0	0	+	1	1
1-3		0	0	0	0	0	+
0-1		0	0	0	+	0	+

		VISIBILITY							6
		≥1/2	1/2-3/4	1/4-2	2-8	8-10	10-10		
LOW CLOUD CEILING	NC	0	0	0	+	4	34		
	50-99	0	0	0	0	+			
	35-50	0	0	+	+	1	2		
	20-35	0	0	0	+	2	8		
	10-20	0	0	0	1	6	17		
	0-10	+	+	1	2	6	12		
	3-6	0	0	0	1	2	1		
	1-3	0	0	0	+	+	+		
0-1.5	+	0	0	0	0	+			
							782		

		VISIBILITY						
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	0
LOW CLOUD CEILING	MC	0	0	0	0	1	80	
	30-90	0	0	0	0	0	0	
	35-50	0	0	0	0	0	0	
	20-35	0	0	0	0	0	1	
	10-20	0	0	0	0	0	5	
	5-10	0	0	1	0	0	1	
	3-5	0	0	0	0	0	0	
	1-3	0	0	0	0	0	0	
0-1.5		0	0	0	0	0	3	

		VISIBILITY							8
		1/4	1/2	3/4	1	2-5	10 or more		
LOW CLOUD CEILING	NC	0	0	0	0	1	80		
	50-99	0	0	0	0	0	+		
	35-50	0	0	0	0	+	1		
	70-35	0	0	0	0	0	1		
	10-20	0	0	0	+	+	3		
	5-10	0	0	0	0	0	2		
	3-5	0	0	0	0	0	+		
	1.5-3	0	0	0	0	0	0		
0-1.5	0	0	0	0	0	0	61		

		VISIBILITY					
		<1/2	1/2-1	1-2	2-5	>5	>10
LOW CLOUD CEILING	NC	0	0	0	0	1	44
	80-80	0	0	0	0	+	2
	35-80	0	0	0	+	0	7
	20-35	0	0	0	+	1	12
	10-20	0	0	0	+	1	22
	8-10	0	0	0	+	1	8
	3-8	0	0	0	+	+	+
	1-3	0	0	0	0	0	0
0-1.5	0	0	0	0	0	+	

807

		VISIBILITY					
		<1/2	1/2-1	1-2	2-5	5-10	10
LOW CLOUD CEILING	MC	+	0	0	0	1	29
	60+80	0	0	0	0	+	2
	35+60	0	0	0	0	1	7
	20+35	0	0	0	+	2	15
	10+20	0	+	0	+	2	27
	5+10	0	0	+	+	2	9
	3+5	0	0	0	0	1	1
	1.5+3	0	0	0	+	+	+
0+1.5	0	0	0	0	0	0	

13	VISIBILITY								14
<10	>10		<1/8	1/8	1/4	3/8	>10		
7	68	MC	0	0	0	0	1	62	
+	+	50+80	0	0	0	0	0	2	
+	+	35+50	0	0	0	0	+	4	
2	4	20+35	0	0	0	+	1	7	
3	8	10+20	0	0	0	+	1	14	
1	3	0+10	0	0	0	+	1	7	
0	1	5+6	0	0	0	0	0	1	
0	0	1-5+9	0	0	0	0	+	0	
0	0	0+1.5	0	0	0	0	0	+	
RR								709	

		VISIBILITY							15
		<1/4	1/4-1/2	1/2	3/4	>3/4	>10	>10	
LOW CLOUD CEILING	NC	0	0	0	0	3	30		
	80-83	0	0	0	0	0	0		
	80-85	0	0	0	0	2	0		
	80-88	0	0	0	0	0	7		
	80-90	0	0	0	0	0	22		
	80-91	0	0	0	0	7	18		
	9-96	0	0	2	0	0	1		
	1-9-99	0	0	0	0	0	0		
0-1-9	0	0	0	0	0	0			

107

		VISIBILITY							16
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	WC	0	0	0	0	0	14		
	60-99	0	0	0	0	0	3		
	96-99	0	0	0	0	5	3		
	100-999	0	0	0	0	1	23		
	>1000	0	0	0	0	0	34		
	0<10	0	0	0	0	3	14		
	3-99	0	0	0	0	0	2		
	1-9-99	0	0	0	0	0	0		
0<1-8	0	0	0	0	0	0	118		

		VISIBILITY							17
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	10	
LOW CLOUD CEILING	MC	0	0	0	0	3	65		
	50-99	0	0	0	0	0	1		
	35-49	0	0	0	0	0	1		
	20-34	0	0	0	0	1	5		
	10-19	0	0	0	0	2	12		
	5-9	0	0	0	0	2	6		
	3-4	0	0	0	0	0	1		
	1-2	0	0	0	0	0	0		
0-1.5		0	0	0	0	0	0		

		VISIBILITY							18
		<1/2	1/2-1	1-2	2-5	5-10	>10		
LOW CLOUD CEILING	WC	0	0	+	+	3	52		
	50-99	0	0	0	0	0	1		
	30-49	0	0	0	0	0	2		
	20-29	0	0	0	0	2	8		
	10-19	0	0	0	0	2	16		
	0-10	0	0	1	+	2	7		
	5-9	0	0	0	0	1	1		
	1-4	0	0	0	0	+	+		
	0-1	0	0	0	0	0	+		
								409	

		VISIBILITY							19
		<1/4	1/4-1/2	1/2-3/4	3/4-1	>1	010		
LOW CLOUD CEILING	NC	0	0	0	+	3	45		
	50<50	0	0	0	0	+	1		
	35<50	0	+	0	+	+	6		
	30<35	0	0	0	+	+	12		
	10<20	0	0	0	+	2	19		
	0<10	+	0	+	+	2	5		
	3<5	0	+	+	+	1	1		
	1-4<3	0	0	+	0	+	0		
0<1-5	+	0	0	+	+	0			

854

[illegible]

		VISIBILITY							24
		1/4	1/2	3/4	1	2	3	4	5
NC		+	0	0	0	1	3	54	
80+80		0	0	0	0	0	+	1	
30+80		0	0	0	0	0	0	1	
10+80		0	0	0	0	0	1	8	
8+10		0	0	0	1	4	16		
8+8		0	+	+	1	1	1	8	
3+8		0	+	0	1	1	1		
1.5+3		0	0	0	+	+	0		
0+1.5		+	0	0	0	0	0		

		VISIBILITY							25
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CELLING	NC	+	0	0	0	2	20		
	50-60	0	0	0	0	+	1		
	30-40	0	0	0	0	2	3		
	20-30	+	0	1	1	2	7		
	10-20	0	0	0	2	8	21		
	0-10	0	0	0	1	3	5		
	0-5	+	0	0	3	2	+		
	1-5-0	0	0	0	1	0	0		
0-1-5	2	0	0	0	0	0			

		VISIBILITY								26
		<1/8	1/8	1/4	3/8	1/2	5/8	3/4	1	
LOW CLOUD CEILING	NC	1	1	0	1	1	42			
	80-90	0	0	0	0	0	1			
	35-40	0	0	0	0	1	0			
	80-90	0	0	0	0	2	10			
	10-20	0	0	0	0	2	18			
	0-10	1	0	1	1	3	5			
	0-40	0	0	0	0	4	1			
	1.0-3.0	0	0	0	0	0	0			
0-1.0	1	0	0	0	1	0				

		VISIBILITY							27
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10-100	
LOW CLOUD CEILING	NC	0	0	0	0	4	65		
	50-99	0	0	0	0	0	0		
	30-49	0	0	0	0	0	12		
	20-29	0	0	0	0	0	15		
	10-19	0	0	0	0	0	0		
	0-10	0	0	0	0	4	0		
	3-4	0	0	0	0	0	0		
	1-2	0	0	0	0	0	0		
		0-1	0	0	0	0	0		
									28

		VISIBILITY							28
		1/2	1/4	1/8	1/16	1/32	1/64		
LOW CLOUD CEILING	NC	0	0	5	0	9	36		
	90-99	0	0	0	0	0	5		
	80-89	0	0	0	0	0	5		
	70-79	0	0	0	0	0	18		
	60-69	0	0	0	0	0	9		
	50-59	0	0	0	0	0	14		
	40-49	0	0	0	0	0	0		
	30-39	0	0	0	0	0	0		
	20-29	0	0	0	0	0	0		
	10-19	0	0	0	0	0	0		
								29	

31 32

NT INSUFFICIENT
DATA

		VISIBILITY						33
		1/4	1/2	3/4	1	3	10	
LOW CLOUD CEILING	NC	0	0	0	0	5	25	
	60-80	0	0	0	0	0	1	
	80-90	0	0	0	1	1	2	
	90-96	0	0	0	1	10	8	
	10-15	0	0	0	5	8	7	
	0-10	0	0	0	2	5	10	
	3-8	0	0	0	1	1	2	
	1-3-8	0	0	1	0	0	0	
0-1-8	0	0	0	1	1	0		

		VISIBILITY						34
		<1/2	1/2-1	1-2	2-5	>5	10	
LOW CLOUD CEILING	NC	0	0	1	1	20	0	
	0-50	0	0	0	0	0	0	
	50-99	0	0	0	0	1	0	
	99-999	0	0	0	0	10	0	
	10-100	0	0	1	6	15	0	
	0-10	1	0	0	0	1	1	
	0-5	0	0	0	1	0	0	
	1-5-3	0	0	0	0	0	0	
0-1-5	3	0	0	1	1	0		

35

**INSUFFICIENT
DATA**

		VISIBILITY						36
		<1/4	1/4-1/2	1/2-1	1-3	3-10	>10	
LOW CLOUD CEILING	NC	0	0	0	0	0	27	
	50-80	0	0	0	0	0	0	
	36-50	0	0	0	0	9	0	
	20-35	0	0	0	0	0	30	
	10-20	0	0	0	0	0	18	
	0-10	0	0	0	0	9	0	
	3-6	0	0	0	9	0	0	
	1-3	0	0	0	0	0	0	
	0-1.5	0	0	0	0	0	0	
		0	0	0	0	0	0	

	VISIBILITY					
	<1/4	1/4-1/2	1/2-3/4	3/4-1	1-3	3+
NC	0	0	0	0	0	0
50<80	0	0	0	0	0	0
20<50	0	0	0	0	0	0
20<30	0	0	0	8	8	17
10<20	0	0	0	8	33	0
0<10	0	0	0	8	8	8
3+8	0	0	0	0	0	0
1-5+3	0	0	0	0	0	0
0<1.5	0	0	0	0	0	0

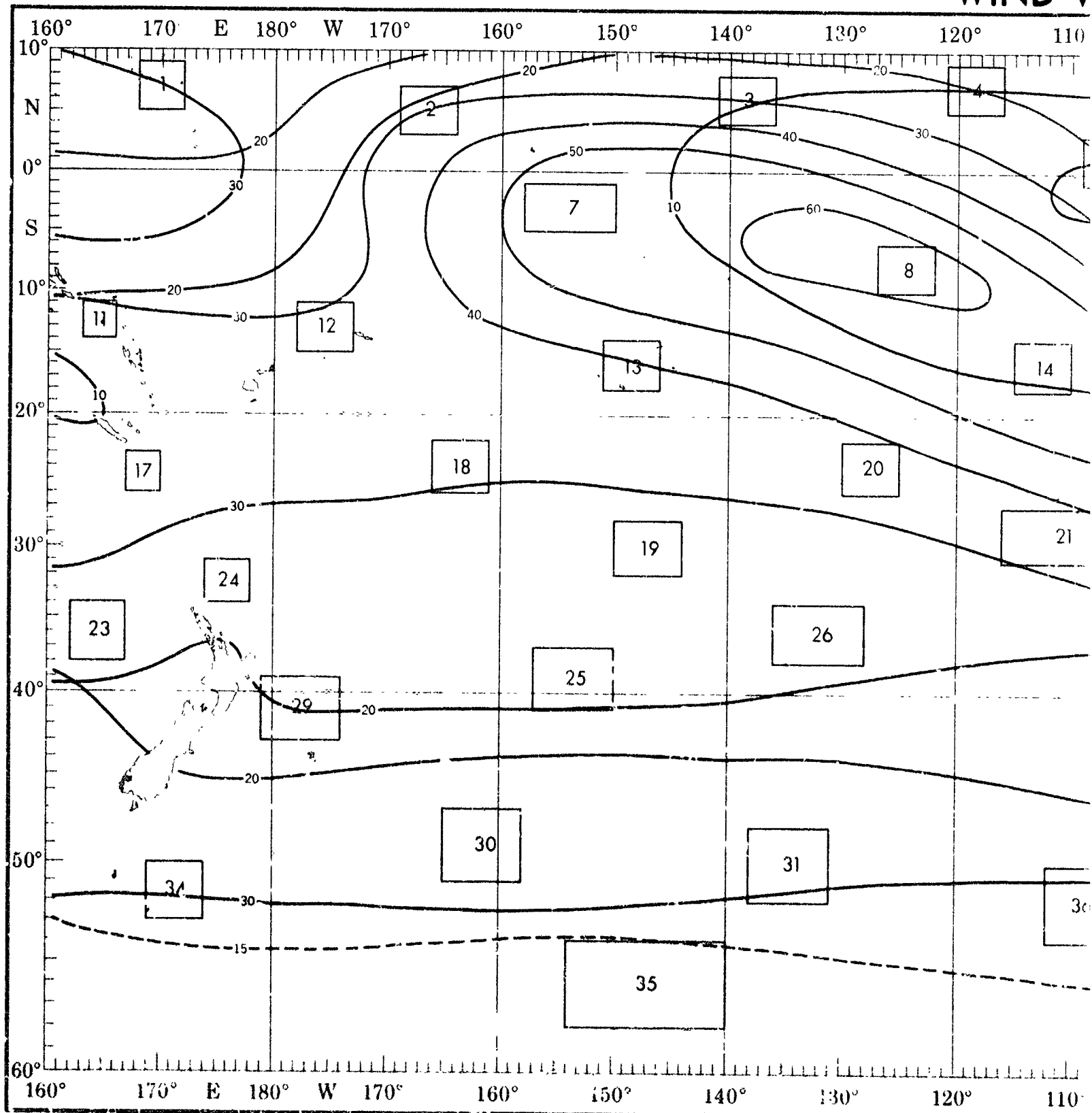
NT INSUFFICIENT
DATA

**INSUFFICIENT
DATA**

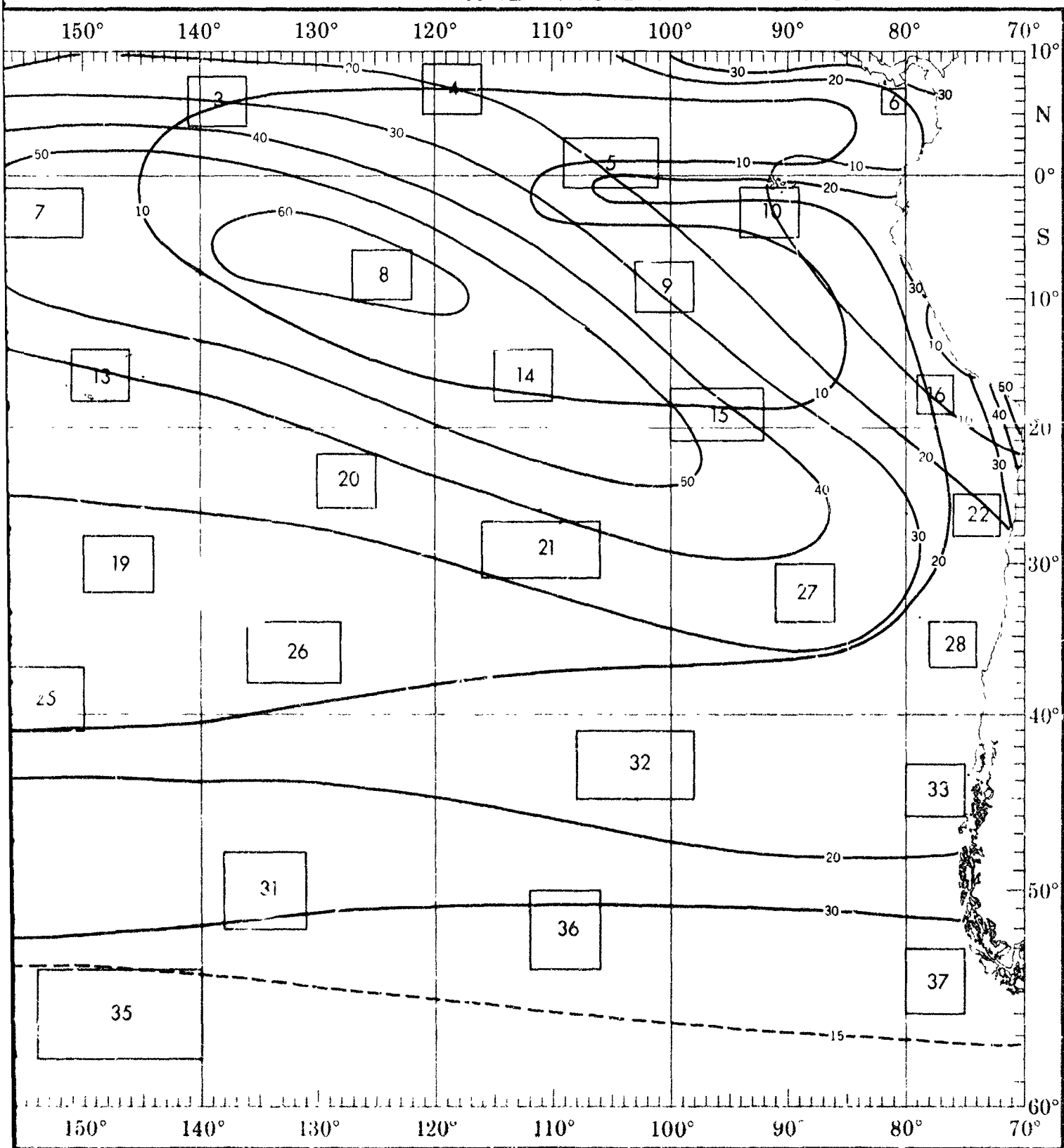
ent the objective compilation of available data for specified areas without regard to suspected biases. Analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.

OCTOBER

WIND-V



WIND-VISIBILITY-CLOUDINESS



1

1

2

LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbv) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet

WIND SPEED (knots)

LCC - Vsbv	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
Vsbv <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
Vsbv <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of N_h <5/8

+ indicates <.5% but >0

1234 ← Number of observations

Conditions for Carrier Operations

BLUE LINE Percent frequency of optimum conditions LCC ≥ 3000 ft, (or no LCC), Vsbv ≥ 5 nm and Wind 11-21 kts

RED LINE Percent frequency of poor conditions Any one of the following constitutes poor conditions. LCC <300 ft, Vsbv <1 nm., Wind <6 or ≥ 34 kts

Satisfactory conditions-between poor and optimum

11

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

84

12

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

172

13

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

671

14

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

707

15

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

107

16

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

118

20

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

717

21

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

122

22

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

153

23

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

1121

24

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

387

25

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

237

29

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

387

30

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

17

31

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

153

32

WIND SPEED (KNOTS)

LCC - VSBV	0-3	4-10	11-22	23-34	35-44
<1.5 & OR <5	0	0	0	0	0
<5 & OR <2	0	0	0	0	0
VSBV <2	0	0	0	0	0
<10 & OR <5	0	0	0	0	0
<20 & OR <5	0	0	0	0	0
VSBV <5	0	0	0	0	0
<30 & OR <5	0	0	0	0	0
<40 & OR <5	0	0	0	0	0
NC & > 10	0	0	0	0	0

1121

33

WIND SPEED (KNOT

VISIBILITY-WIND

OCTOBER

Visibility (V_{by}) in nautical

(h) when low cloud amount

ceiling <1000 feet and/or

currents of N_h <5/8

and Wind 11 21 kts

conditions LCC <300 ft.

B

34

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

1

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	1	0
<8 & OR <2	1	1	2	1
VSBY <2	0	0	0	0
<10 & OR <2	2	13	7	1
<20 & OR <5	5	25	14	1
VSBY >5	9	60	25	2
>50 & >5	4	34	12	1
NC & >10	4	30	11	0

161

2

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	2	+	0
VSBY <2	0	0	0	0
<10 & OR <2	1	6	2	+
<20 & OR <5	1	12	7	1
VSBY >5	6	50	41	2
>50 & >5	4	34	32	1
NC & >10	4	31	31	1

294

3

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	1	+	0
<8 & OR <2	0	3	3	0
VSBY <2	0	1	1	0
<10 & OR <2	1	9	10	+
<20 & OR <5	2	14	17	1
VSBY >5	4	36	54	2
>50 & >5	2	22	34	1
NC & >10	2	21	32	+

231

4

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	1	1	1	1
<8 & OR <2	1	3	3	1
VSBY <2	1	2	2	1
<10 & OR <2	2	9	16	1
<20 & OR <5	3	17	29	1
VSBY >5	6	40	42	1
>50 & >5	3	24	15	0
NC & >10	3	20	13	0

173

5

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<8 & OR <2	+	1	+	0
VSBY <2	0	0	0	0
<10 & OR <2	1	8	4	0
<20 & OR <5	3	11	15	0
VSBY >5	5	57	35	1
>50 & >5	3	31	15	+
NC & >10	2	29	14	+

599

6

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	+	0
<8 & OR <2	1	3	2	0
VSBY <2	+	1	1	0
<10 & OR <2	1	13	11	+
<20 & OR <5	2	25	23	1
VSBY >5	5	52	38	1
>50 & >5	3	23	12	+
NC & >10	3	21	10	+

777

7

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	0	1
VSBY <2	0	0	0	1
<10 & OR <2	0	0	1	1
<20 & OR <5	1	1	6	1
VSBY >5	2	39	53	8
>50 & >5	1	38	49	3
NC & >10	1	37	49	3

154

8

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	+	+	0
VSBY <2	0	0	0	0
<10 & OR <2	0	1	1	+
<20 & OR <5	0	2	6	+
VSBY >5	+	38	63	1
>50 & >5	+	33	57	1
NC & >10	+	32	58	1

614

9

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	0
<8 & OR <2	0	0	1	+
VSBY <2	0	0	0	0
<10 & OR <2	0	2	9	+
<20 & OR <5	0	8	25	1
VSBY >5	0	24	73	3
>50 & >5	0	11	34	1
NC & >10	0	10	32	1

806

10

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	0	0
<8 & OR <2	+	2	1	0
VSBY <2	0	+	+	0
<10 & OR <2	+	10	3	0
<20 & OR <5	1	31	10	0
VSBY >5	3	71	28	+
>50 & >5	1	24	8	+
NC & >10	1	22	7	+

891

14

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	0
<8 & OR <2	0	0	1	0
VSBY <2	0	0	0	0
<10 & OR <2	0	3	8	1
<20 & OR <5	0	5	18	2
VSBY >5	2	28	65	7
>50 & >5	1	19	40	4
NC & >10	1	18	38	4

707

15

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	1	0	0
VSBY <2	0	0	0	0
<10 & OR <2	0	7	21	0
<20 & OR <5	0	11	38	0
VSBY >5	4	28	68	2
>50 & >5	3	18	22	1
NC & >10	3	18	20	1

107

16

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	1	1	0
VSBY <2	0	0	0	0
<10 & OR <2	0	6	13	0
<20 & OR <5	1	21	26	4
VSBY >5	3	41	47	8
>50 & >5	3	5	7	2
NC & >10	3	3	7	2

118

17

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	+	+
VSBY <2	0	0	0	0
<10 & OR <2	0	3	3	+
<20 & OR <5	1	8	11	+
VSBY >5	4	39	50	7
>50 & >5	3	26	38	+
NC & >10	3	26	33	+

238

18

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	+	0
<8 & OR <2	0	1	2	+
VSBY <2	0	1	+	0
<10 & OR <2	+	3	8	2
<20 & OR <5	1	8	15	5
VSBY >5	5	31	48	11
>50 & >5	4	22	28	4
NC & >10	3	20	25	3

408

23

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	+	+	+	+
<8 & OR <2	+	+	1	1
VSBY <2	+	+	+	+
<10 & OR <2	+	4	8	4
<20 & OR <5	1	12	18	8
VSBY >5	4	33	45	13
>50 & >5	3	18	24	5
NC & >10	3	17	22	4

1121

24

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	+	+	0
<8 & OR <2	1	2	1	0
VSBY <2	0	+	1	0
<10 & OR <2	+	3	8	3
<20 & OR <5	1	11	18	5
VSBY >5	7	35	44	10
>50 & >5	5	22	26	5
NC & >10	5	22	24	4

387

25

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	1	2	+	+
<8 & OR <2	1	4	3	2
VSBY <2	1	2	+	0
<10 & OR <2	1	8	11	3
<20 & OR <5	1	18	28	7
VSBY >5	1	27	49	8
>50 & >5	1	10	17	3
NC & >10	1	10	16	2

237

26

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	2	1	1
<8 & OR <2	0	2	4	4
VSBY <2	0	2	1	1
<10 & OR <2	0	5	8	5
<20 & OR <5	0	18	18	7
VSBY >5	5	33	43	13
>50 & >5	5	14	22	5
NC & >10	5	14	20	3

133

27

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 & OR <2	0	4	0	0
<20 & OR <5	0	4	0	0
VSBY >5	12	48	42	0
>50 & >5	8	31	31	0
NC & >10	8	27	31	0

26

32

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	1	0
<8 & OR <2	0	0	5	2
VSBY <2	0	0	0	1
<10 & OR <2	0	3	19	2
<20 & OR <5	1	6	33	7
VSBY >5	2	28	53	6
>50 & >5	2	12	14	3
NC & >10	1	12	10	2

66

33

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	3	2
<8 & OR <2	0	0	4	2
VSBY <2	0	0	2	1
<10 & OR <2	0	1	4	3
<20 & OR <5	0	2	14	15
VSBY >5	0	4	38	37
>50 & >5	0	1	13	12
NC & >10	0	1	4	4

138

34

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 & OR <2	0	0	0	0
<20 & OR <5	0	0	0	0
VSBY >5	0	0	0	0
>50 & >5	0	0	0	0
NC & >10	0	0	0	0

11

35

WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 & OR <2	0	0	0	0
<20 & OR <5	0	0	0	0
VSBY >5	0	0	0	0
>50 & >5	0	0	0	0
NC & >10	0	0	0	0

11

37

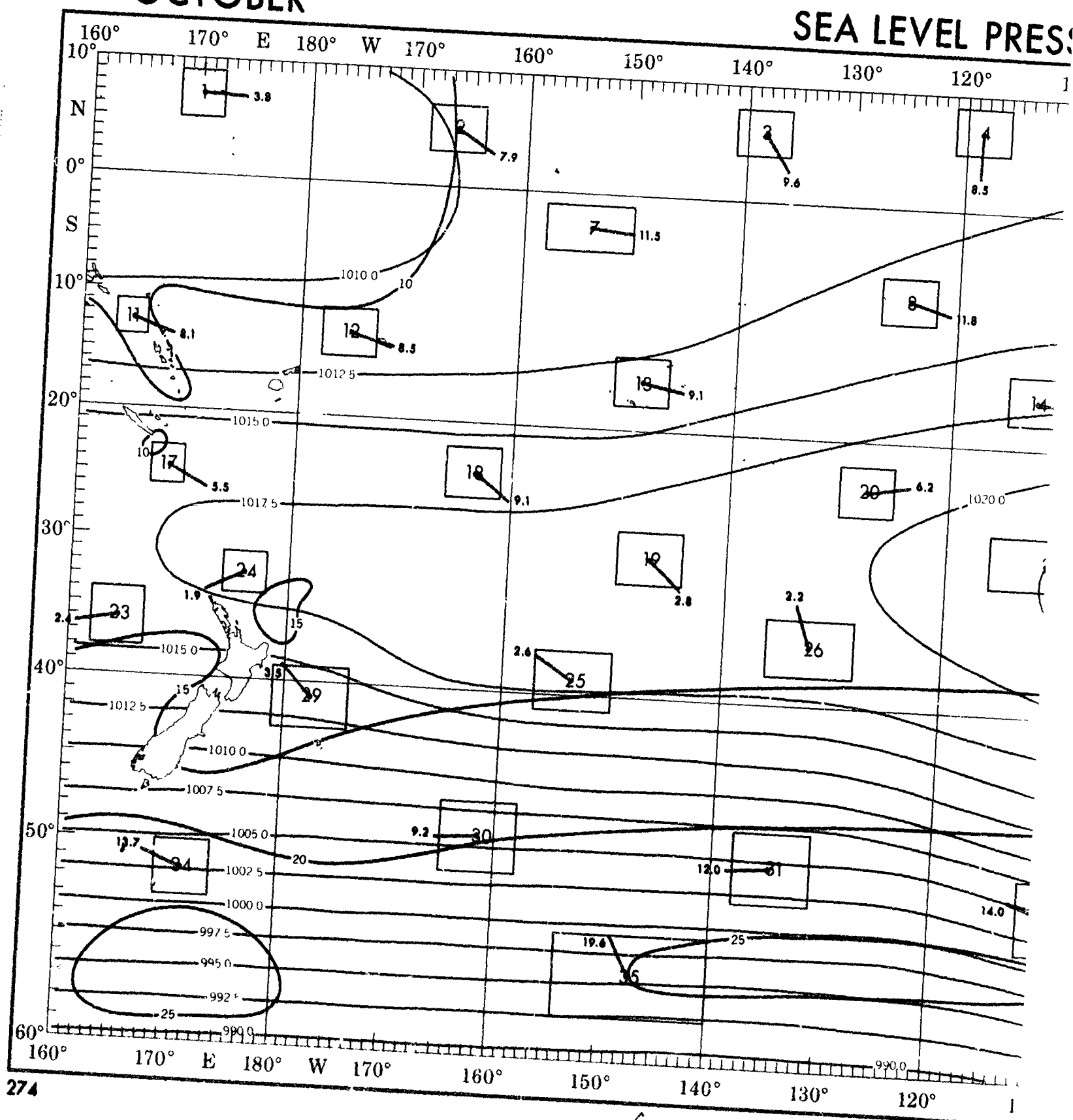
WIND SPEED (KNOTS)

LCC - VSBY	0-3	4-10	11-22	23-34
<1.5 & OR <.5	0	0	0	0
<8 & OR <2	0	0	0	0
VSBY <2	0	0	0	0
<10 & OR <3	0	0	17	8
<10 & OR <5	0	0	33	17
VSBY <5	0	0	50	17
>50 & >8	0	0	0	0
MC > 10	0	0	0	0

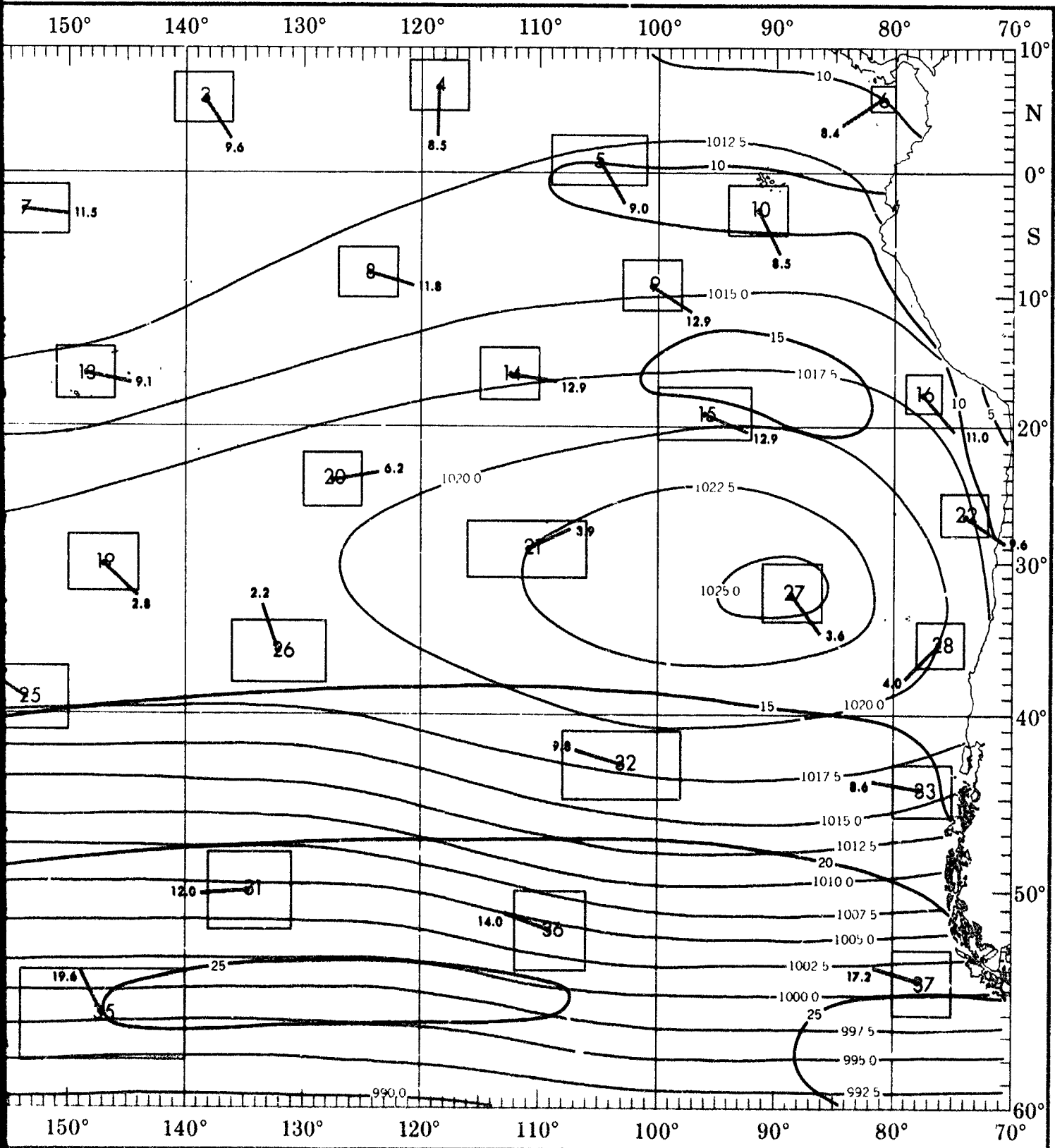
12

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SEA LEVEL PRESS.



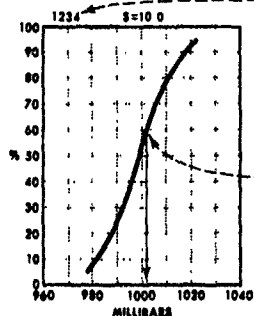
SEA LEVEL PRESSURE AND MEAN WIND



SEA LEVEL PRESSURE

Sea level pressure and mean wind

Number of observations



Cumulative percent frequency of sea level pressures equal to or less than the pressure intersected by the curve

S=Standard deviation of pressure (mbs)

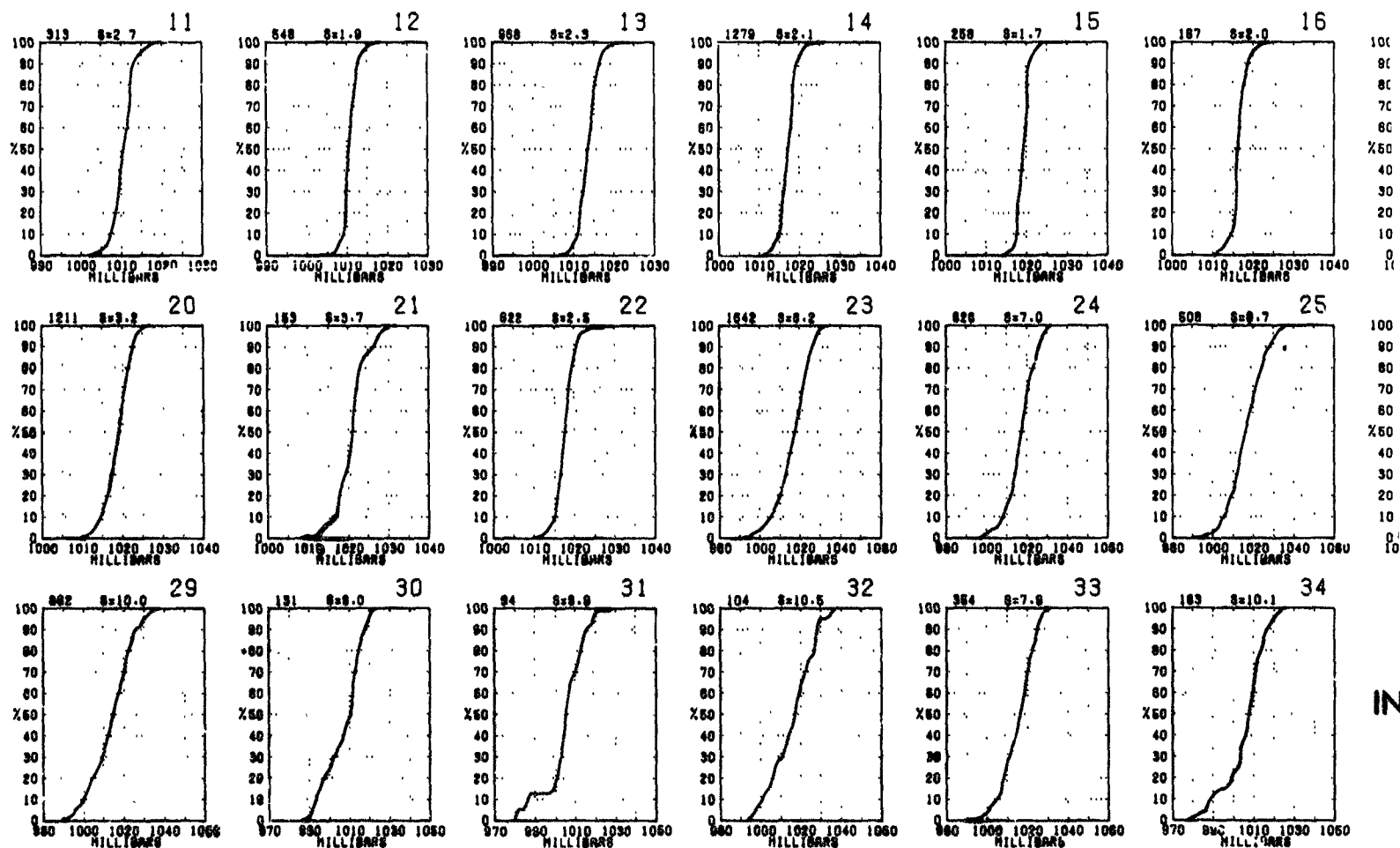
(60% of all observed sea level pressures were ≤ 1002 millibars.)

Vector mean wind is plotted from the direction which the mean flow occurs with the magnitude in knots at the end of the vector.

10.2 Vector mean wind is from the northeast at 10.2 knots.

BLUE LINE - Scalar mean wind speed (kts)

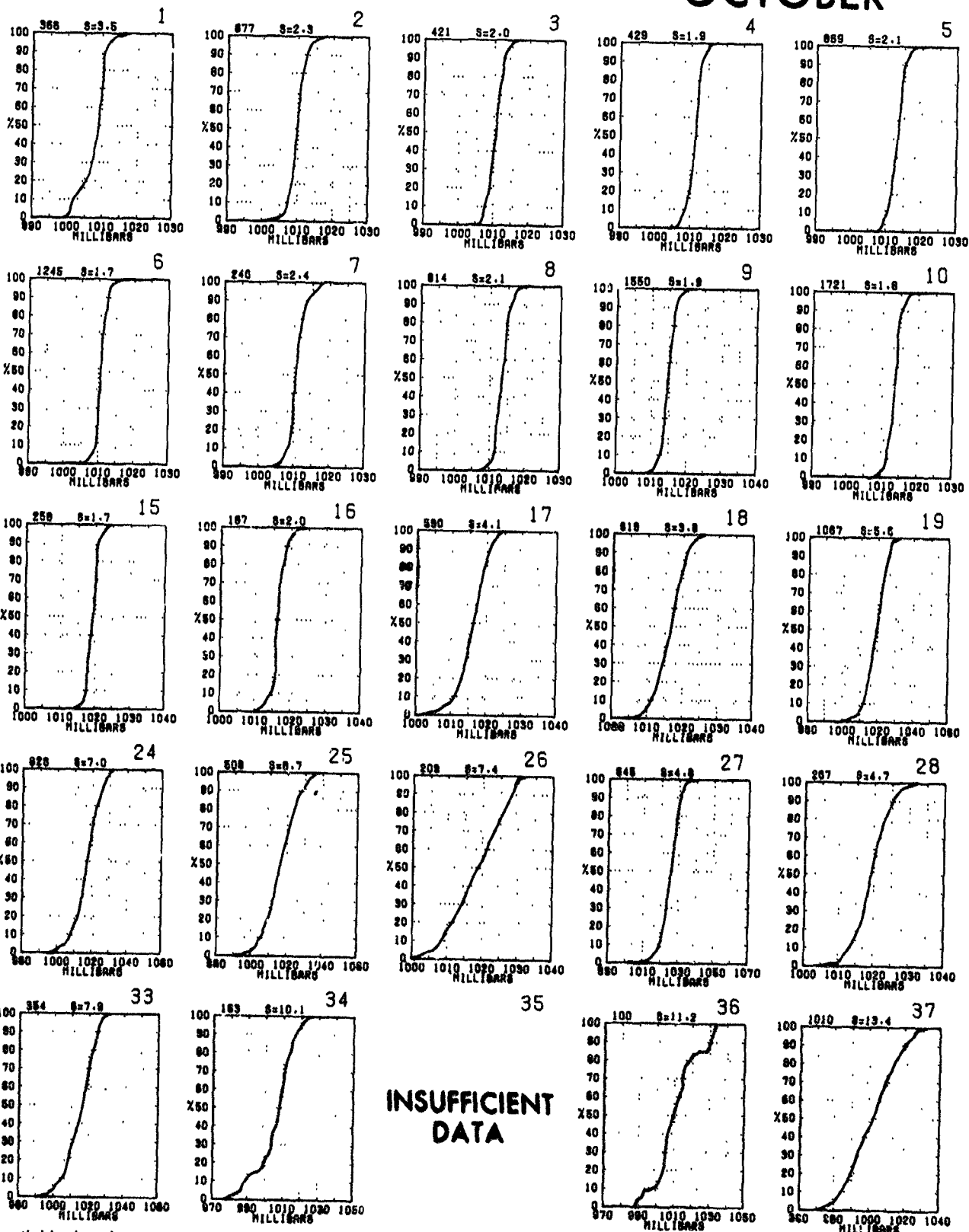
RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without regard to size. The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bias is evident.

IN

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1 to or less than the

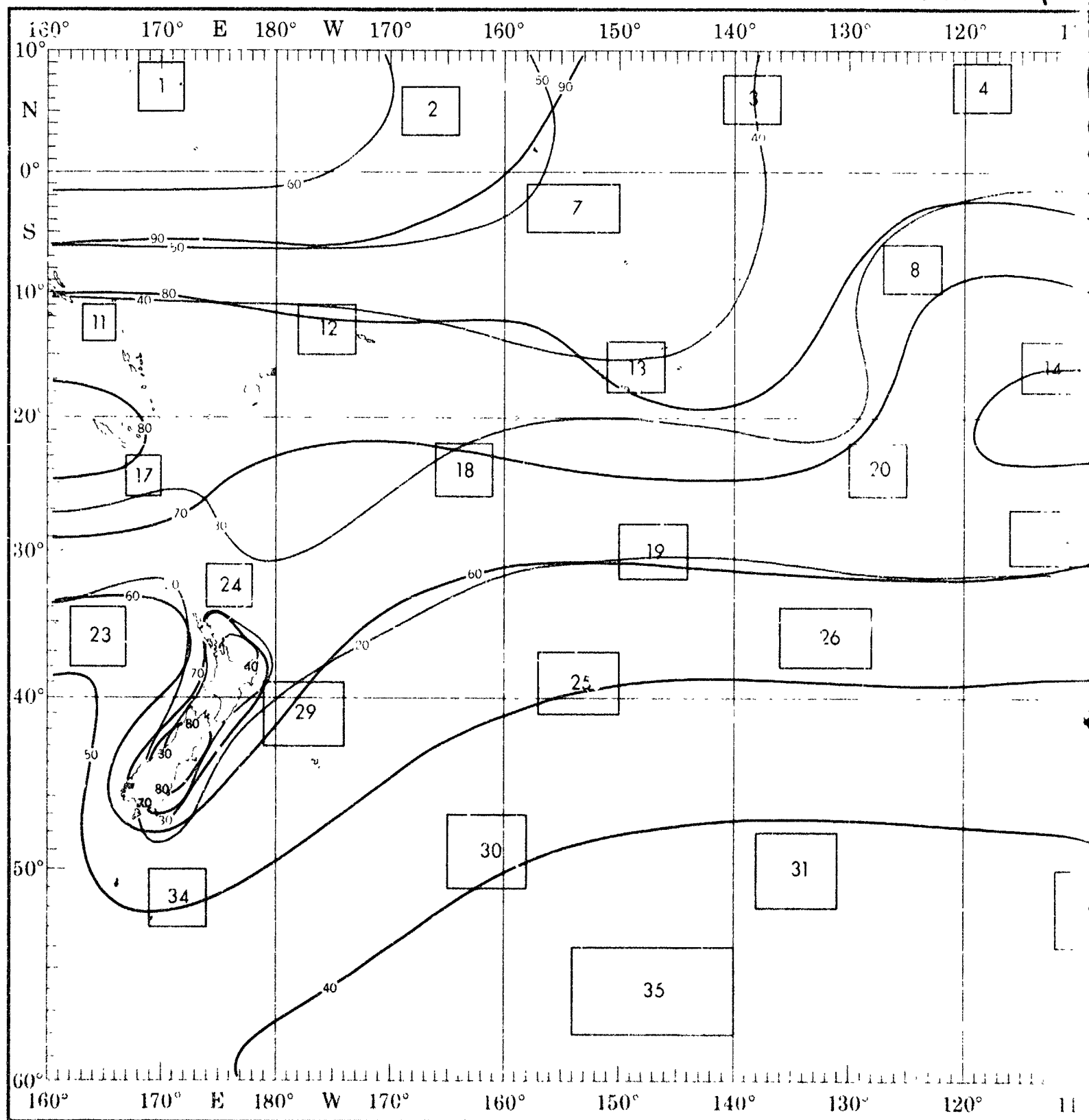
occurs with the

objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

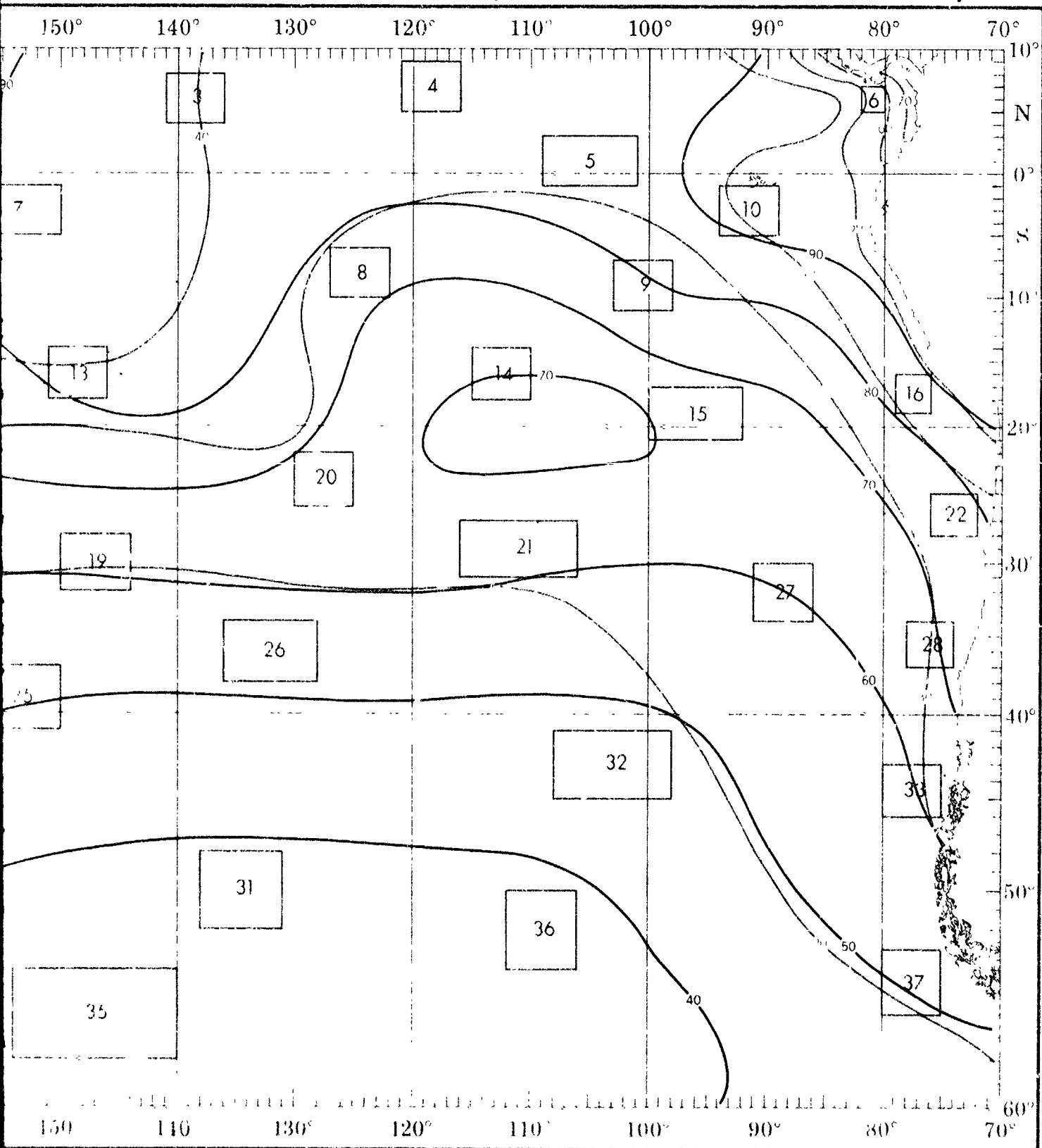
2

OCTOBER

WAVES (<



WAVES (<1.5 AND <2.5 METERS)

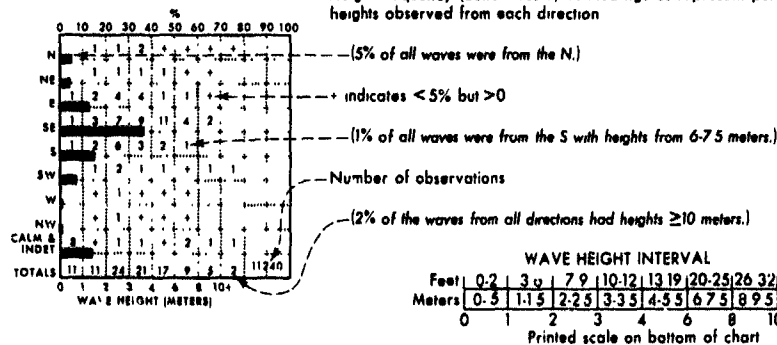


WAVE DIRECTION AND HEIGHT

Wave direction and height

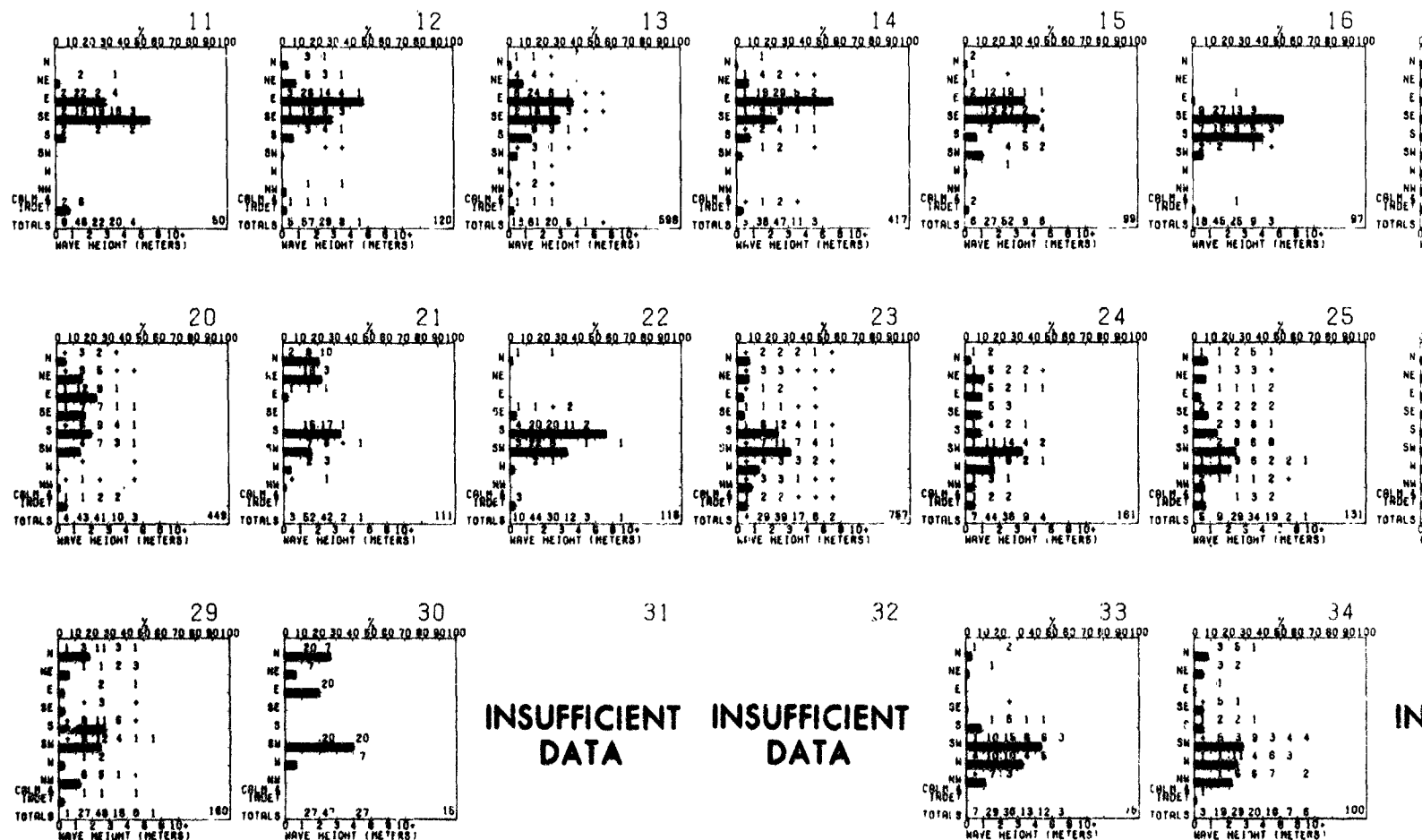
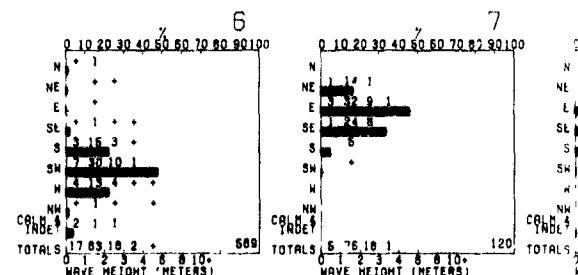
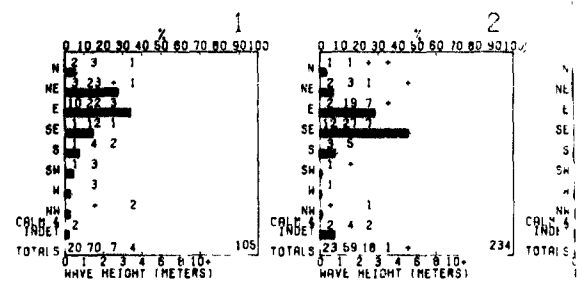
Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE - Percent frequency of wave height <15 meters (5 feet)

RED LINE - Percent frequency of wave height <25 meters (8 feet)



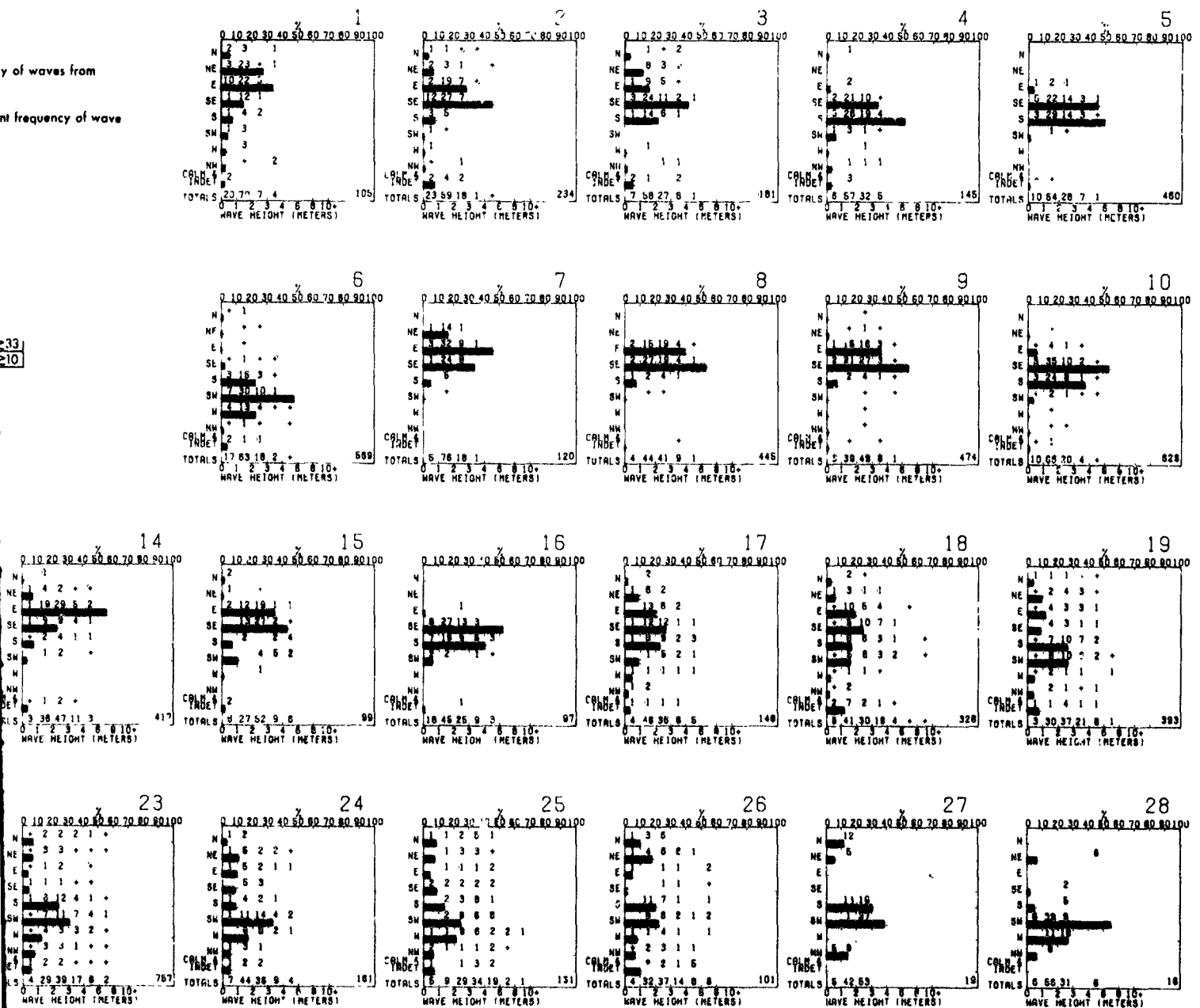
Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

HEIGHT

OCTOBER

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33
10



INSUFFICIENT
DATA

INSUFFICIENT
DATA

INSUFFICIENT
DATA

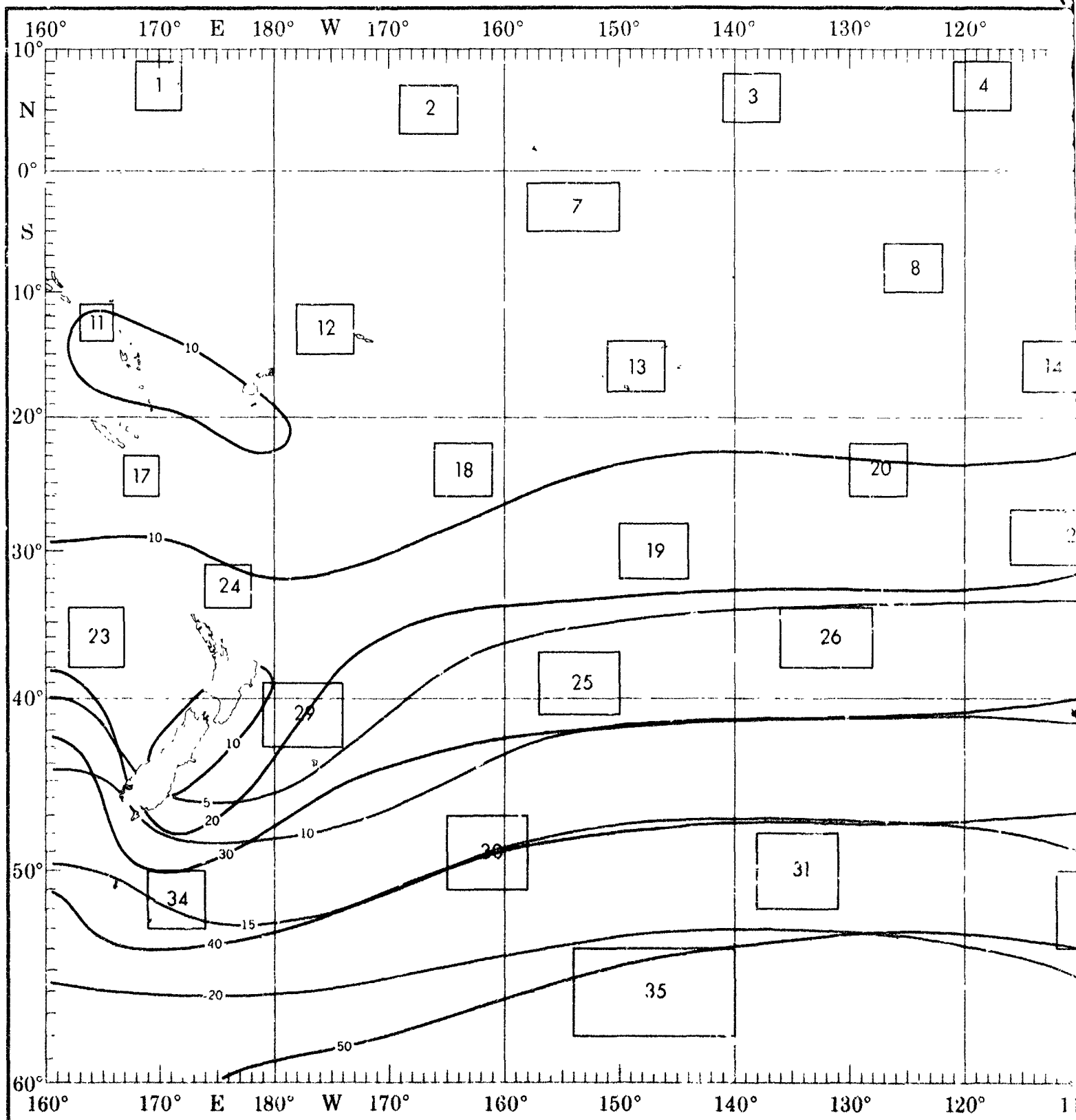
INSUFFICIENT
DATA

pective compilation of available data for specified areas without regard to suspected biases.
pposite page) are based on all available data subjectively adjusted where bias was evident.

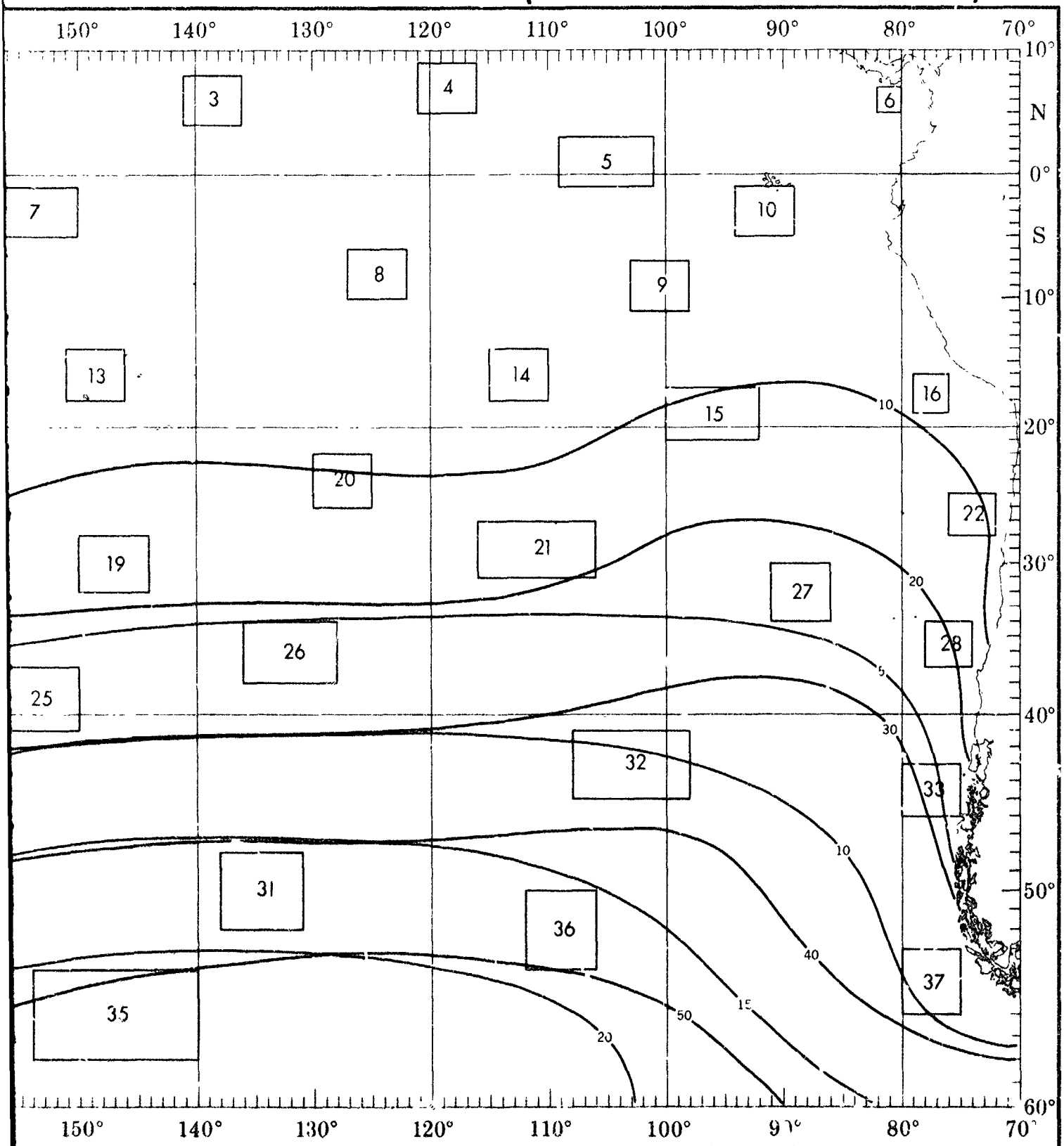
2

OCTOBER

WAVES ()



WAVES (≥ 3.5 AND ≥ 6 METERS)



1

1

2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

PINGD (Seconds)

REORDER (10 FEB)	50	0	1	10	12	13	14
0-0	1	1	1	1	1	1	1
1-0	1	1	1	1	1	1	1
2-0	1	1	1	1	1	1	1
3-0	1	1	1	1	1	1	1
0-1	1	1	1	1	1	1	1
0-2	1	1	1	1	1	1	1
0-3	1	1	1	1	1	1	1
1-1	1	1	1	1	1	1	1

--(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

- + indicates $\leq 5\%$ but ≥ 0 .

- Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

10

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE : Percent frequency of wave height ≥ 6 meters (20 feet)

SPEED (MPH)	PERIOD (SECONDS)						
	0-1	1-2	2-3	3-4	4-5	5-6	6-7
0-0.5	4	0	0	0	0	0	4
1-0.5	10	22	4	0	0	0	0
2-0.5	0	0	0	2	2	0	2
3-0.5	2	0	0	2	0	2	0
4-0.5	0	0	4	0	0	0	0
5-0.5	0	0	0	0	0	0	0
6-0.5	0	0	0	0	0	0	0
7-0.5	0	0	0	0	0	0	0

[illegible]

HEIGHT (FEET)	PERIOD (SECONDS)					
	0-1	1-2	2-3	3-4	4-5	5-6
0-5	0	0	1	0	0	1
1-1.5	10	24	11	2	2	1
2-2.5	4	7	0	2	0	0
3-3.5	1	1	2	0	0	0
4-4.5	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0

HEIGHT (FEET)	PERIOD (SECONDS)					
	0-5	5-10	10-15	15-20	20-25	TOTAL
0-5	2	0	0	0	0	0
5-10	12	13	8	1	0	34
10-15	10	10	11	2	1	34
15-20	2	4	2	1	0	9
20-25	0	1	1	0	0	2
25-30	0	0	0	0	0	0
30-35	0	0	0	0	0	0
TOTAL	24	23	22	4	1	74

HEIGHT (FEET)		PERIOD (SECONDS)					
		0-5	5-10	10-15	15-20	20-25	25-30
0-5	2	0	0	0	0	0	0
5-10	10	3	5	0	0	0	0
10-15	4	22	10	4	0	0	3
15-20	0	0	4	2	3	0	0
20-25	0	0	0	5	0	1	0
25-30	0	0	0	0	0	0	0
30-35	0	0	0	0	0	0	0
35-40	0	0	0	0	0	0	0

WEIGHT (STG)	PERIOD (SECOND)					
	6- 9	9- 12	12- 15	15- 18	18- 21	21- 24
0-0.8	12	2	0	0	0	1
1-1.6	19	12	6	9	0	1
2-2.4	0	0	0	4	2	1
3-3.6	0	3	2	2	1	1
4-4.8	0	1	1	0	1	1
5-5.6	0	0	0	0	0	1
6-6.4	0	0	0	0	0	1
7-7.2	0	0	0	0	0	1
8-8.0	0	0	0	0	0	1
9-9.6	0	0	0	0	0	1

[illegible]

PERIOD : SECONDS							
MEASUREMENT	0-1	1-2	2-3	3-4	4-5	5-6	TOTAL
0-1	3	0	0	0	0	0	
1-1-6	22	23	9	1	2	0	3
0-6-6	0	20	11	2	0	0	2
3-6-6	0	0	2	0	0	0	0
0-6-6	0	0	0	1	0	0	0
0-7-6	0	0	0	0	0	0	0
0-6-C	0	0	0	0	0	0	0
SUB	0	0	0	3	0	0	0

NO. QUANT. (TONNES)	PERIOD (DECEMBER)					
	0	1	10	11	12	1000
0-5	10	0	0	0	0	3
1-5	0	23	0	1	1	0
6-6.5	7	3	11	5	1	2
6-6.5	0	2	0	4	1	0
6-6.5	0	0	1	2	0	0
6-7	0	0	0	0	0	0
6-6.5	0	0	0	0	1	0
7-10	0	0	0	0	0	0

PERIOD (SECONDS)	PERIOD (SECONDS)					
	0	1	2	3	4	5
0-1	3	4	5	6	7	8
1-2	9	10	11	12	13	14
2-3	15	16	17	18	19	20
3-4	21	22	23	24	25	26
4-5	27	28	29	30	31	32
5-6	33	34	35	36	37	38
6-7	39	40	41	42	43	44
7-8	45	46	47	48	49	50
8-9	51	52	53	54	55	56
9-10	57	58	59	60	61	62

PERIOD (SECONDS)	PERIOD (SECONDS)						
	0	1	2	3	4	5	6
0-1	7	1	0	0	0	0	1
1-2	23	12	3	1	1	0	3
2-3	10	12	7	2	1	0	3
3-4	1	4	1	2	1	0	0
4-5	0	2	0	2	0	0	0
5-6	0	0	0	0	0	0	0
6-7	0	0	0	0	0	0	0
7-8	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0

MECHANISM (MIN)	PERIOD (SECONDS)					
	0-1	1-2	2-3	3-4	4-5	5-6
0-0	5	0	0	0	0	0
1-1	3	3	2	0	0	0
2-2	4	14	5	2	2	2
3-3	1	11	6	5	5	2
4-4	1	0	3	5	2	0
5-5	0	1	2	0	0	0
6-6	0	0	1	0	0	0
Σ 10	0	0	0	0	0	0

		PERIOD (SECONDS)										29
RETURN ADDRESS		0	1	0	0	10	11	10	11	10	11	END
0-0	1	0	0	0	0	0	0	0	0	0	0	
1-1-2	0	11	6	1	1	0	0	1				
0-0-0	0	22	11	7	2	0	0	1				
0-0-0	0	4	2	0	0	0	0	1				
0-0-0	1	1	1	2	1	1	1					
0-7-3	0	1	0	0	0	0	0	0				
0-0-0	0	0	0	0	0	0	0	0				
AAA	0	0	0	0	0	0	0	0				

[illegible]

INSUFFICIENT DATA

INSUFFICIENT DATA

		PERIOD (SECONDS)										33
WINDSPEED (MPH)	WIND DIRECTION	0-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25
0-5		1	3	0	0	0	0	0	0	3		
1-10		11	16	3	0	0	0	0	1			
11-15		0	8	17	8	0	0	1				
16-20		0	8	4	4	0	0	0				
21-25		0	1	4	4	3	0	0				
26-30		0	0	0	3	0	0	0				
31-35		0	0	0	0	0	0	0				
36-40		0	0	0	0	0	0	0				

Wavelength (nm)	PERIOD (SECONDS)					
	0	5	10	15	20	25
0-5	2	0	0	0	0	0
1-5	0	0	1	4	0	0
2-5	5	10	10	3	0	1
3-5	2	7	0	1	0	1
4-5	3	4	2	6	0	2
5-5	0	1	0	4	2	0
6-5	0	2	1	2	0	1
all	0	0	0	0	0	0

Graphs represent the objective compilation of available data for specified areas without reg
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

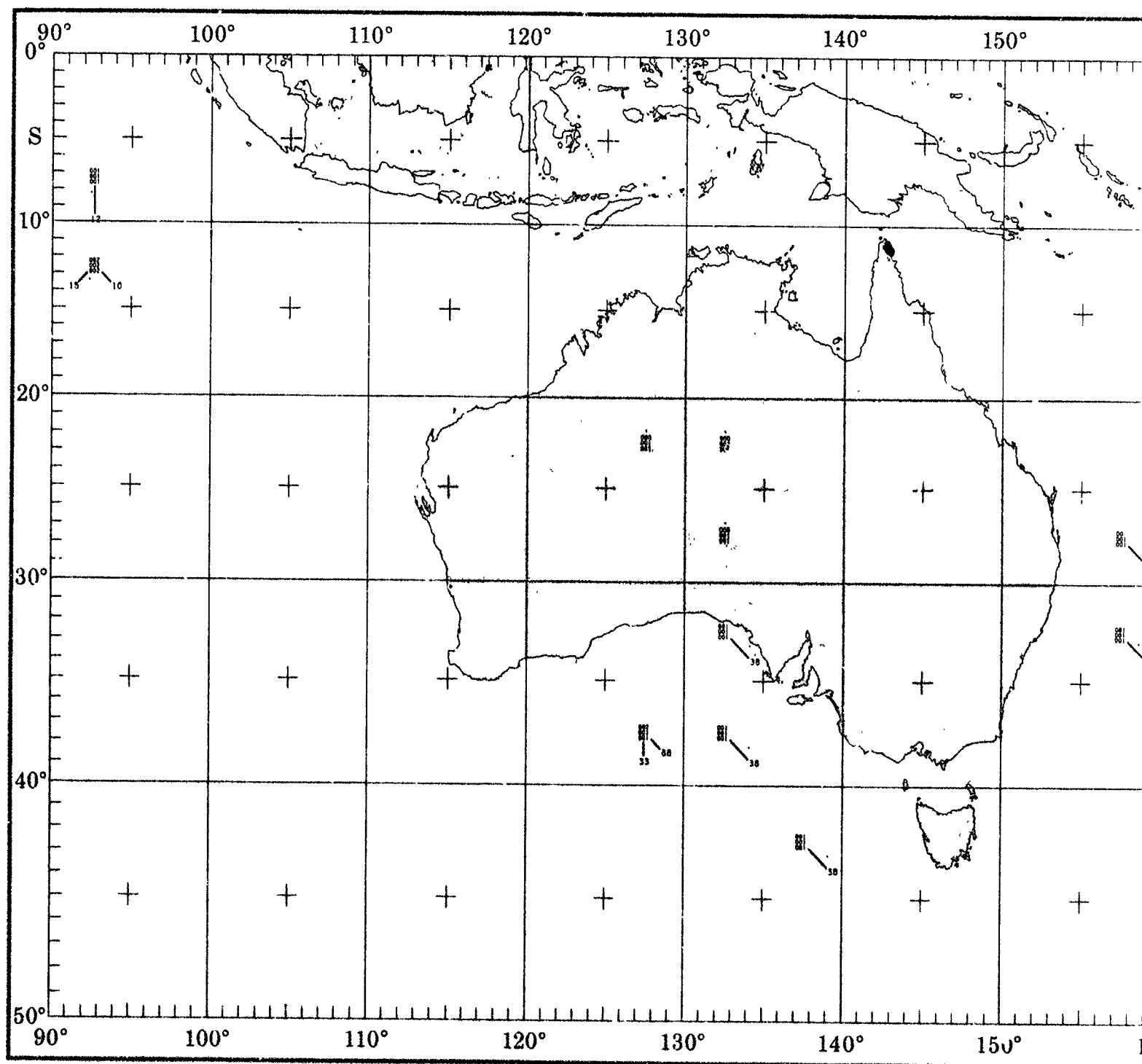
OCTOBER

hen both are reported. If both

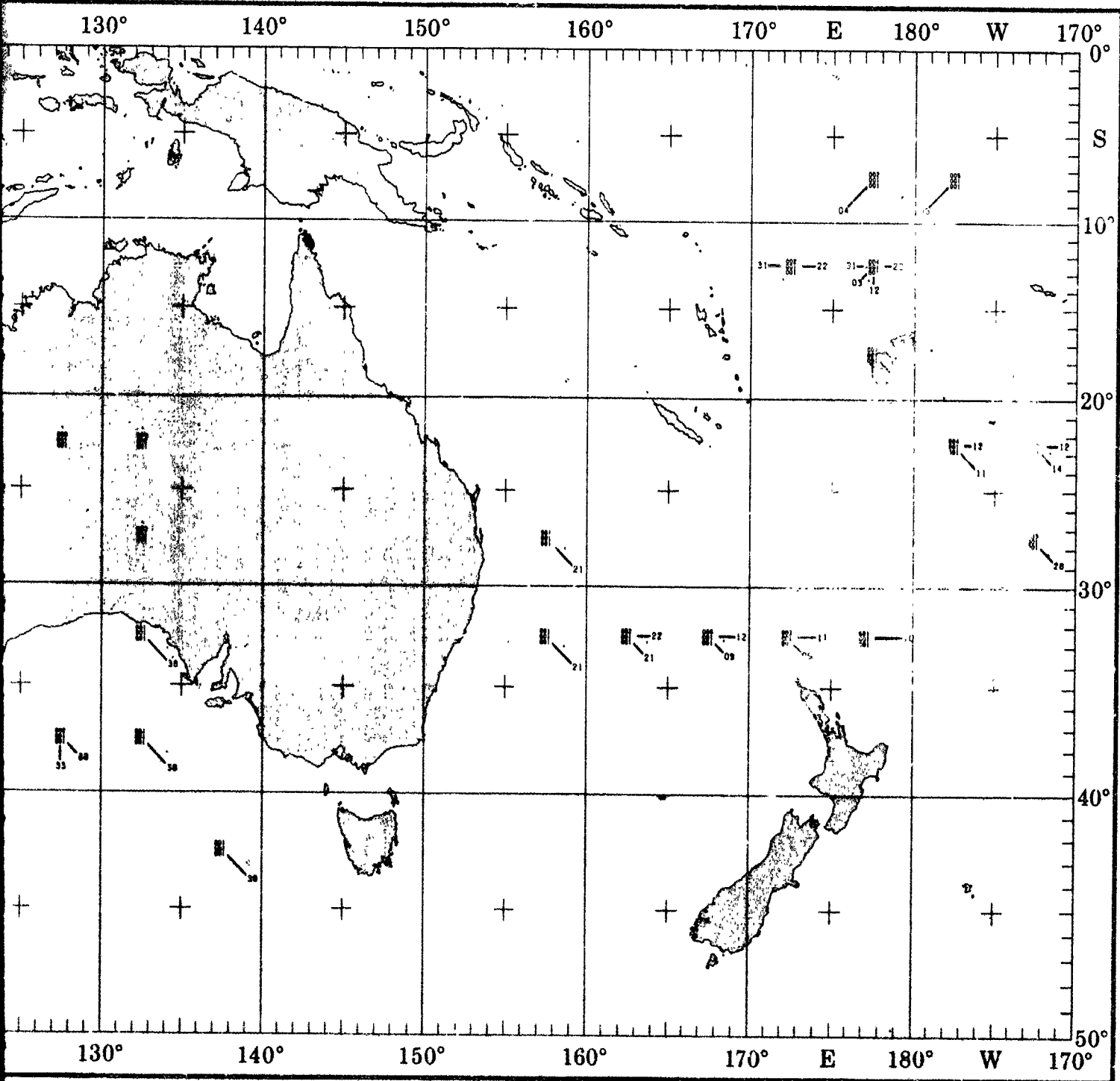
Figure 1 displays a 6x6 grid of 36 small tables, each representing a different combination of period (1-6) and height (1-6). Each table has a header for 'PERIOD (SECONDS)' and 'HEIGHT (FEET)', and a body of numerical data. The tables are arranged in a 6x6 grid, with the first row containing tables 1-6, the second row 7-12, and so on, up to the sixth row containing tables 31-36. The data in the tables varies significantly, with some tables showing high values (e.g., 100, 1000) and others showing low values (e.g., 0, 1). The tables are arranged in a 6x6 grid, with the first row containing tables 1-6, the second row 7-12, and so on, up to the sixth row containing tables 31-36. The data in the tables varies significantly, with some tables showing high values (e.g., 100, 1000) and others showing low values (e.g., 0, 1).

270

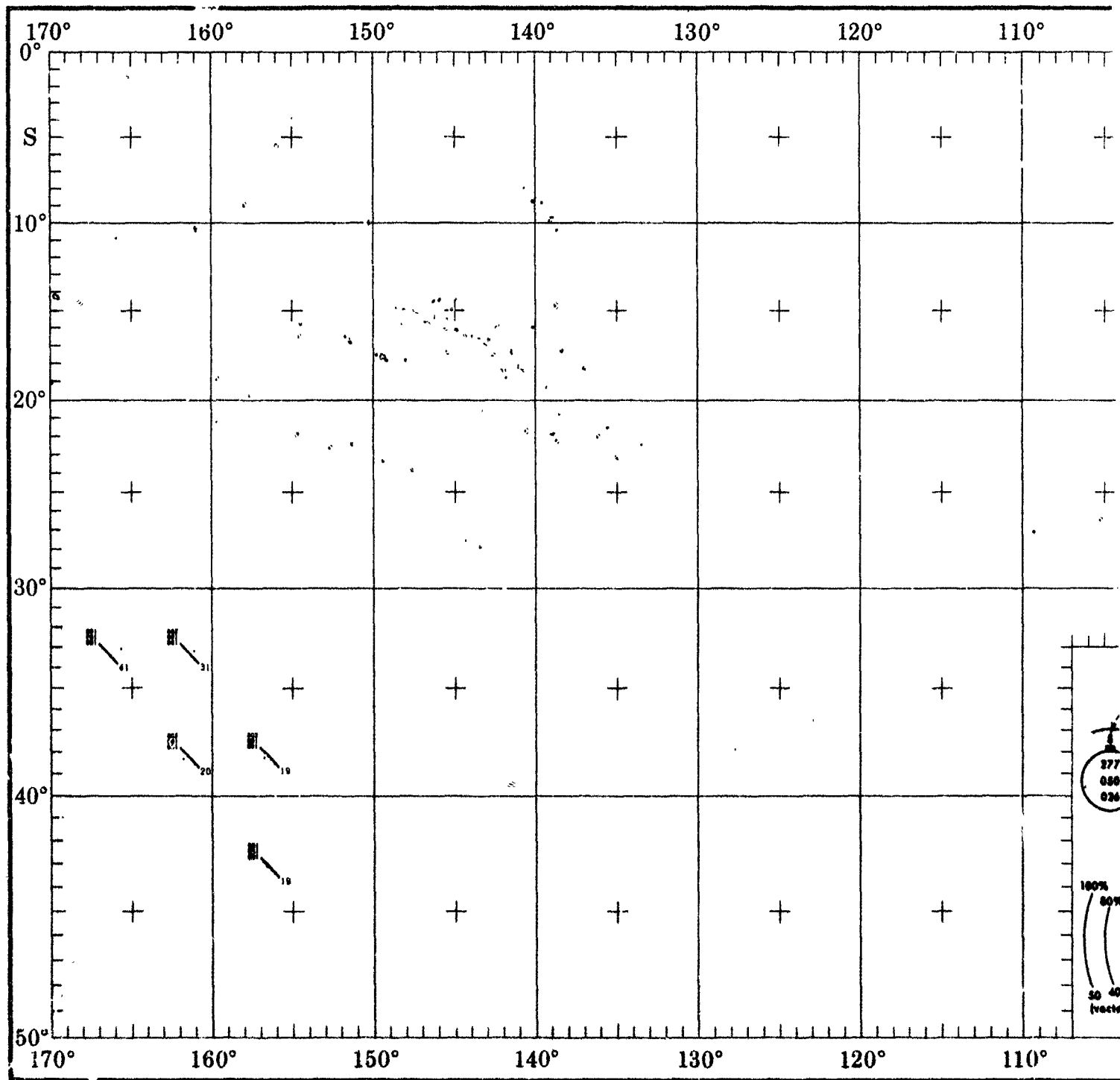
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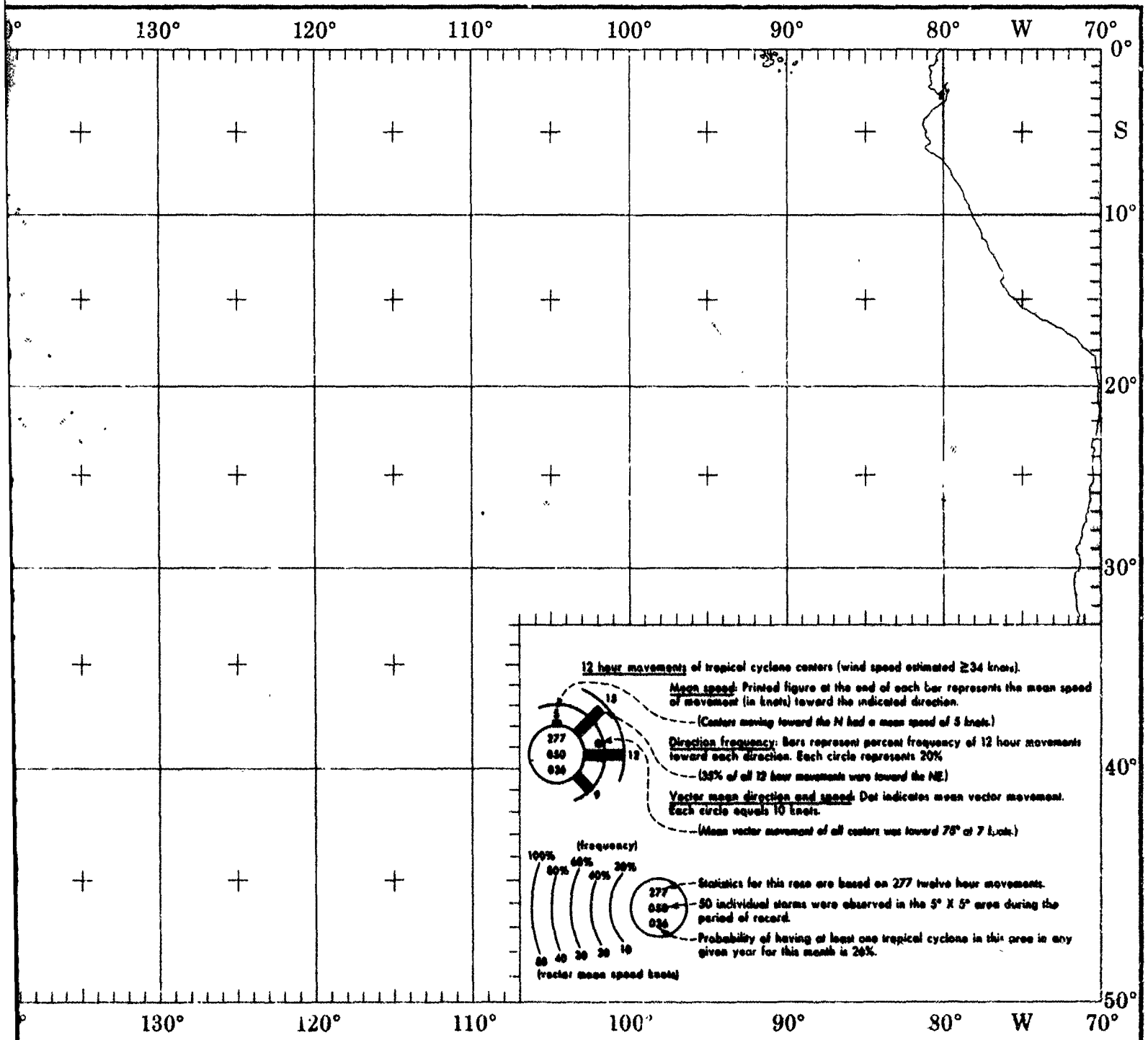
TROPICAL CYCLONE



TROPICAL CYCLONE

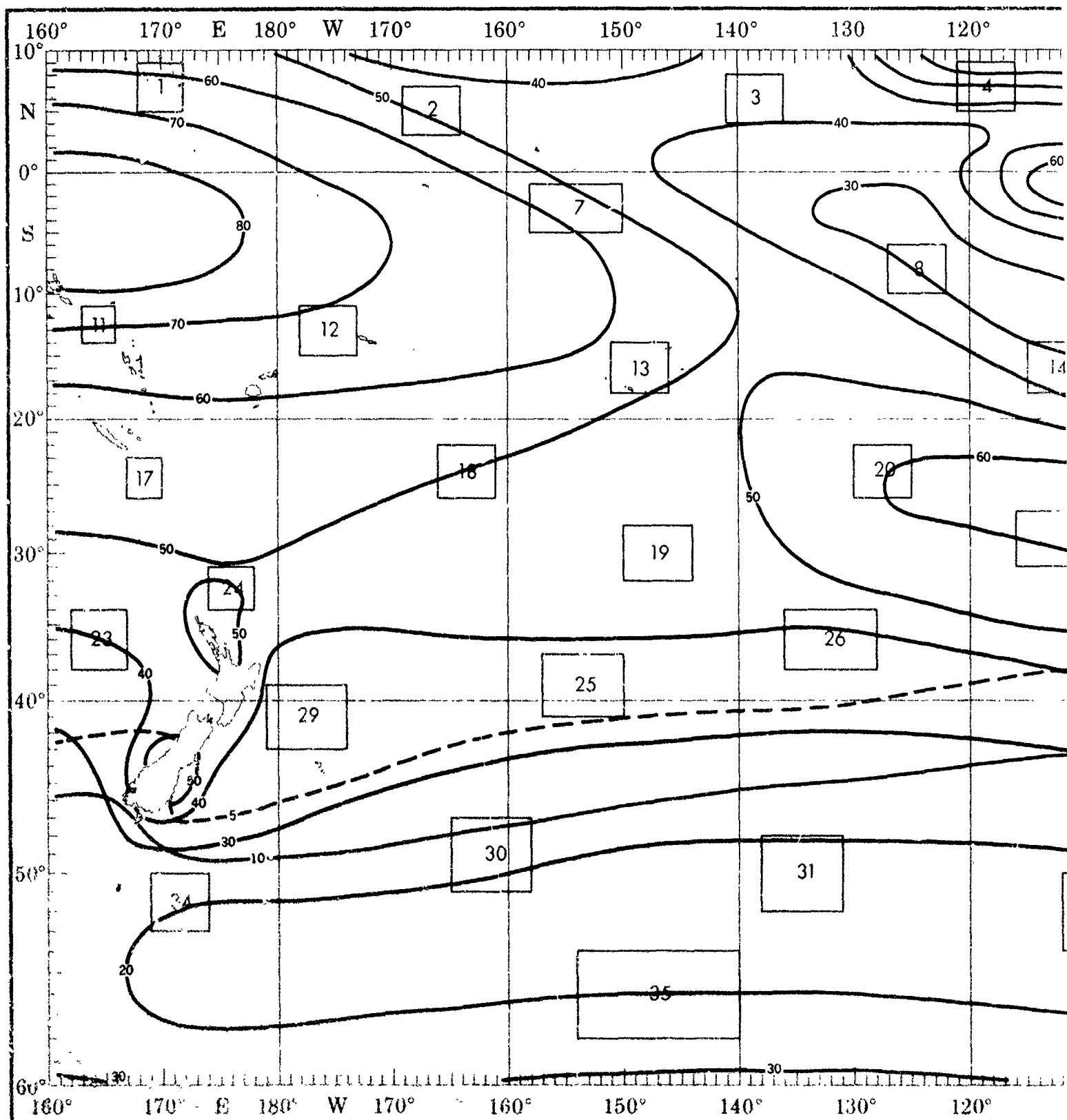


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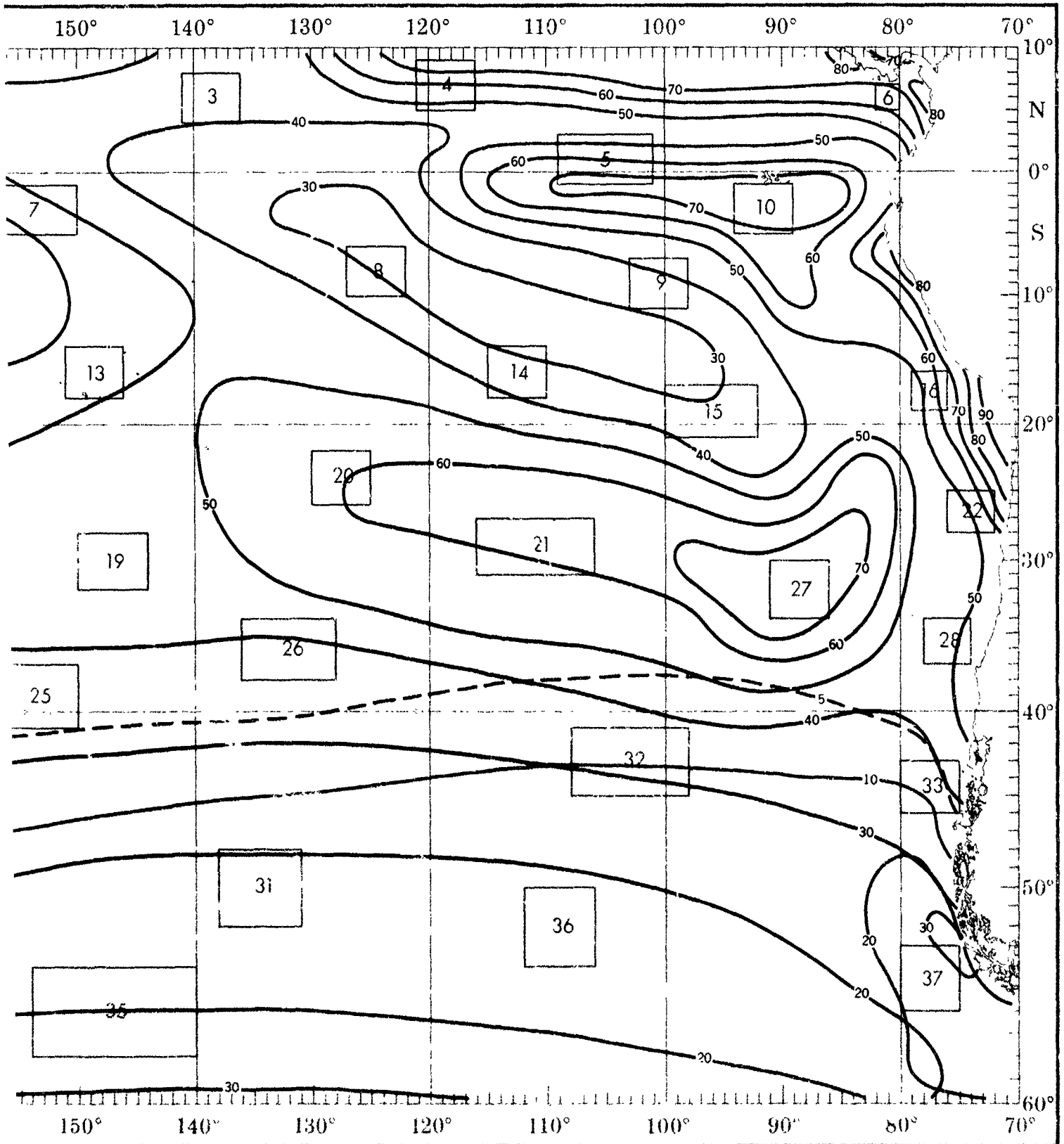


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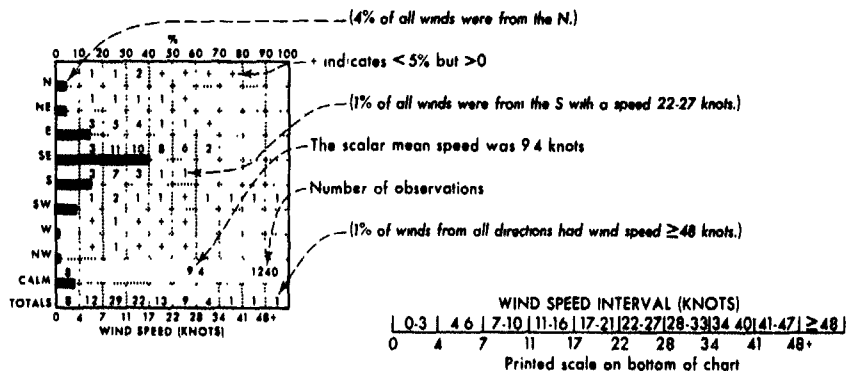


SURFACE WINDS



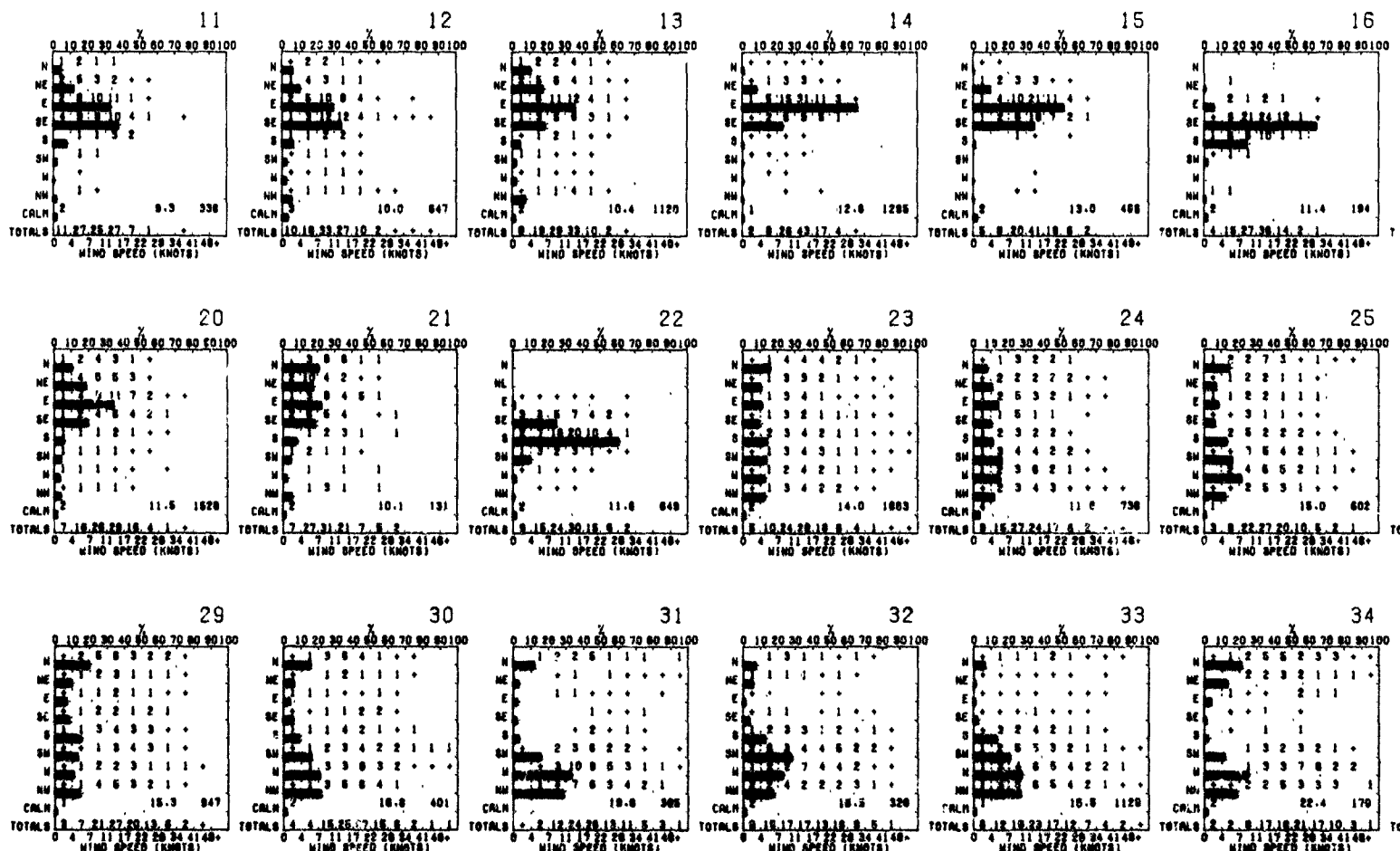
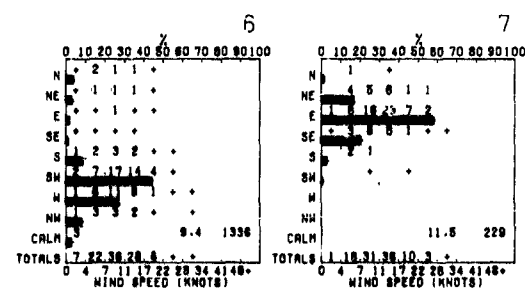
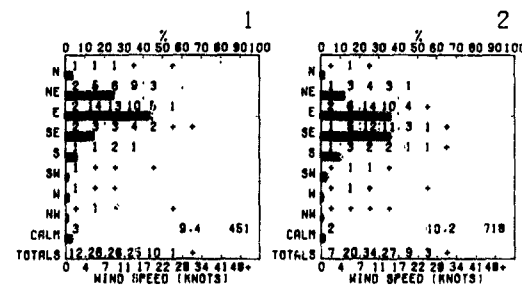
WIND DIRECTION AND SPEED

Direction frequency (top scale). Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale). Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

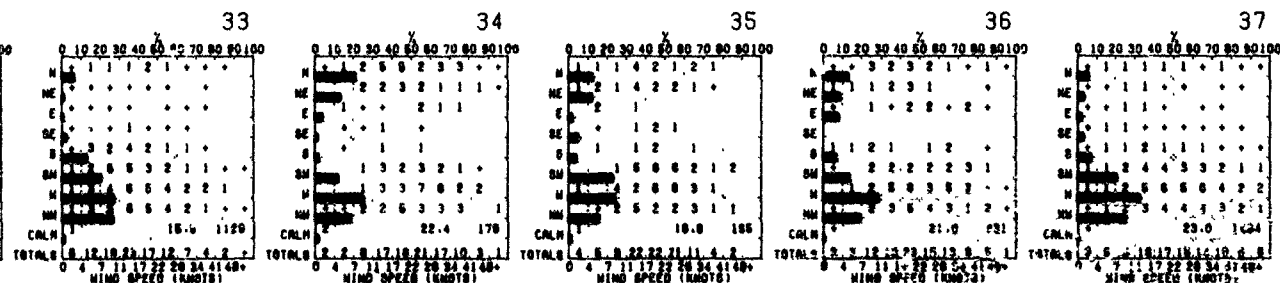
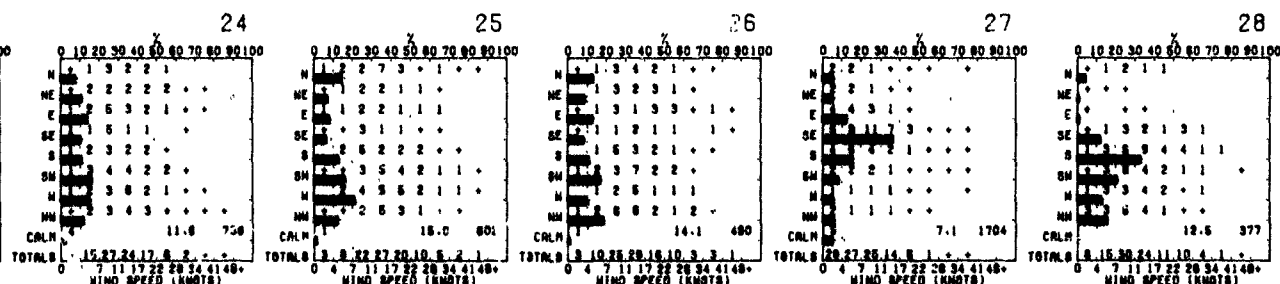
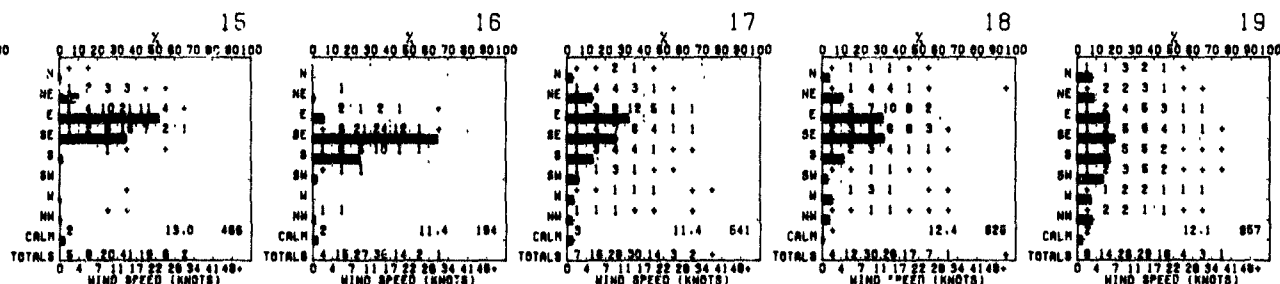
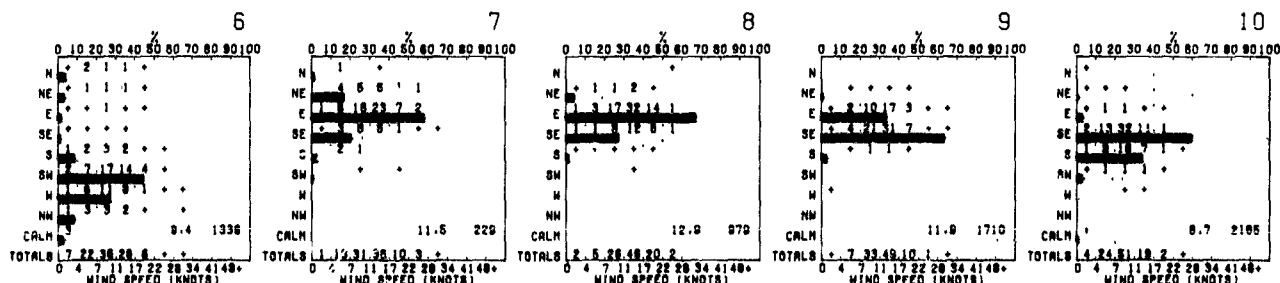
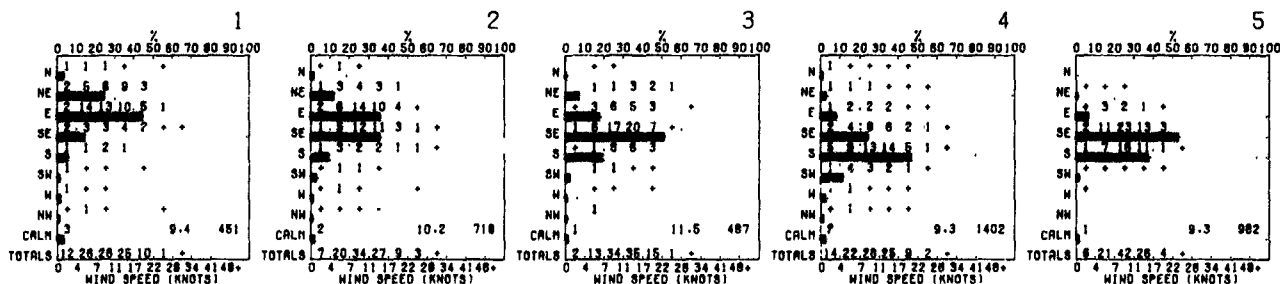


Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

SPEED

NOVEMBER

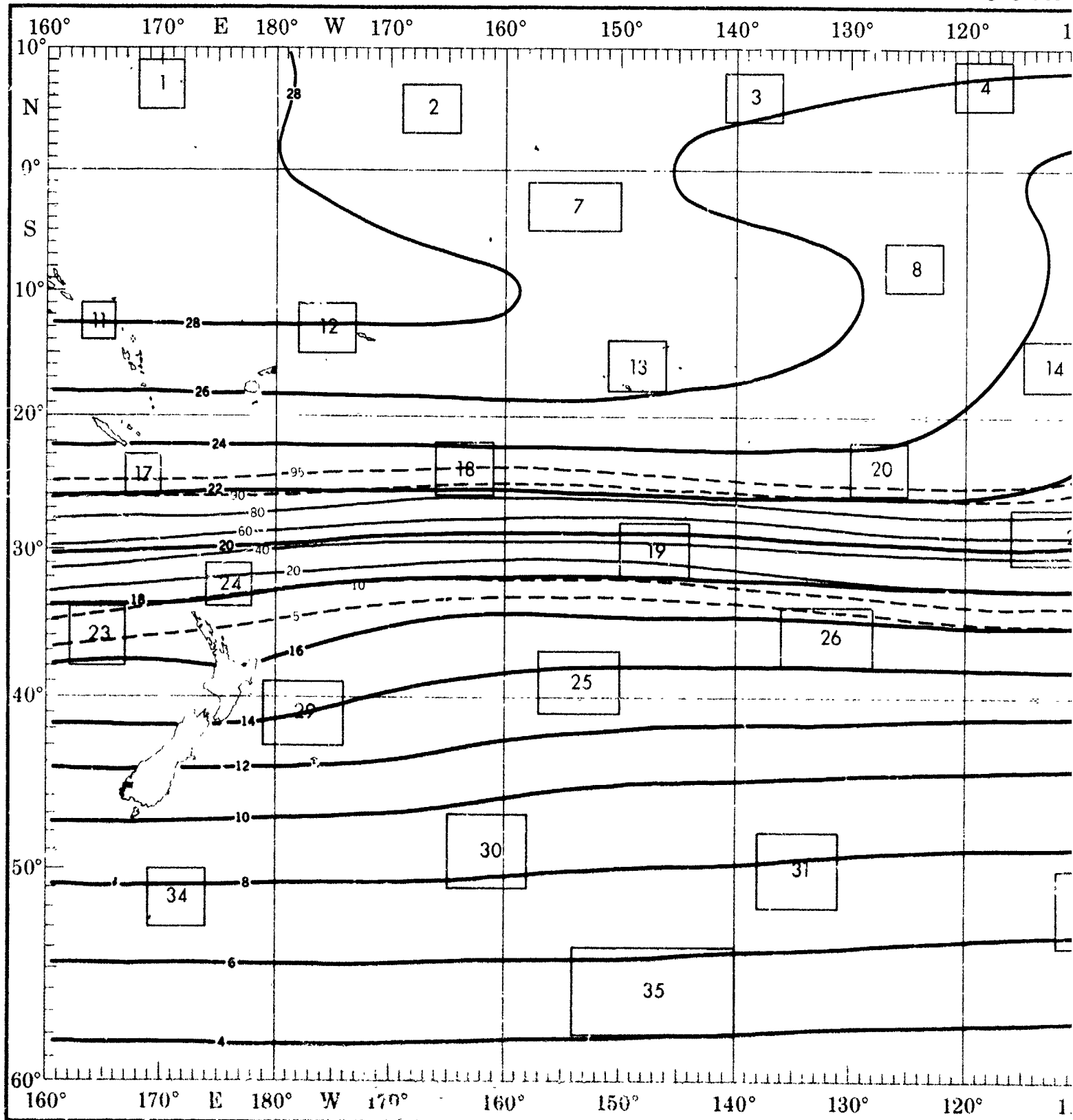
Direction Speed frequency
Direction



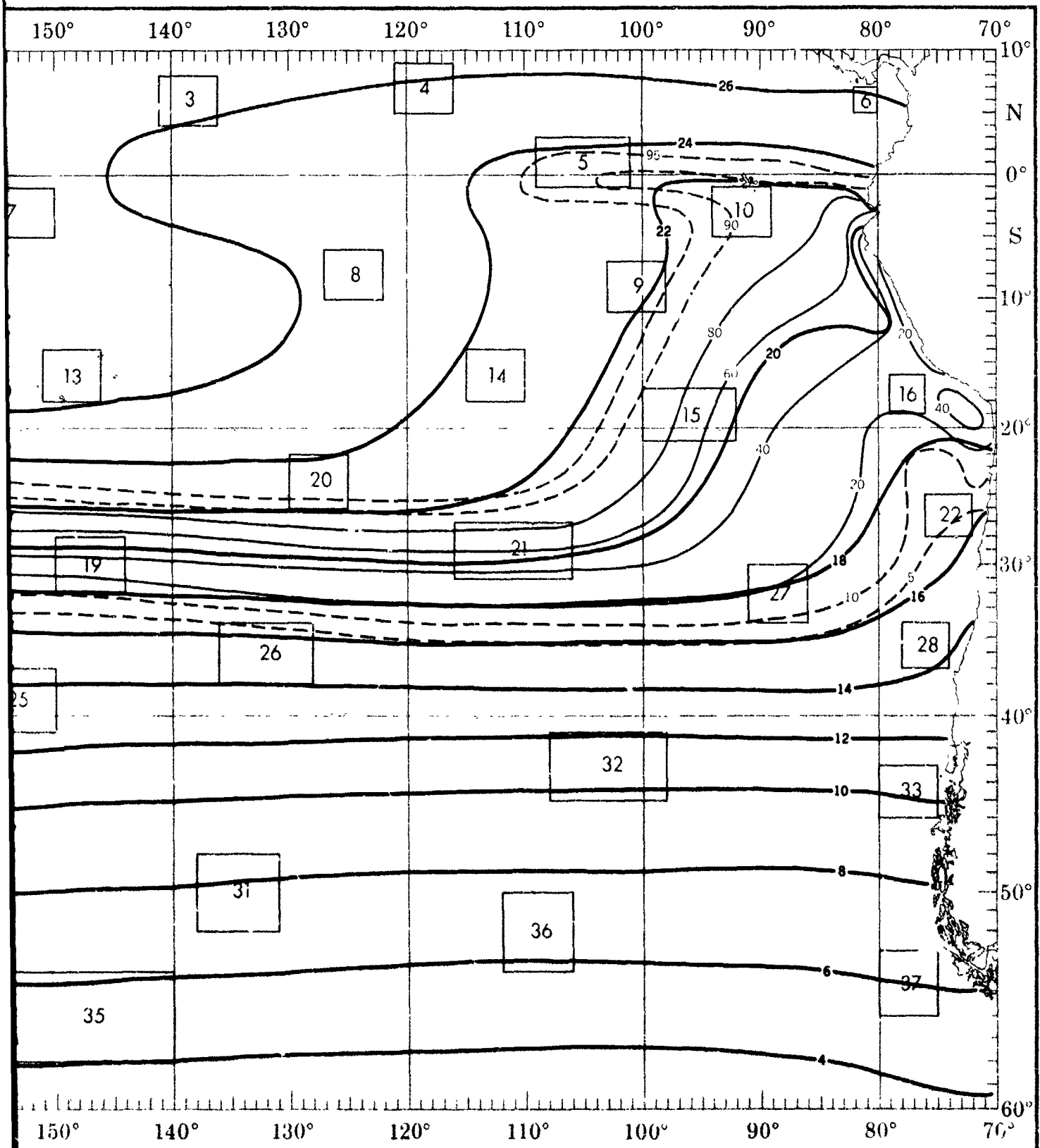
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

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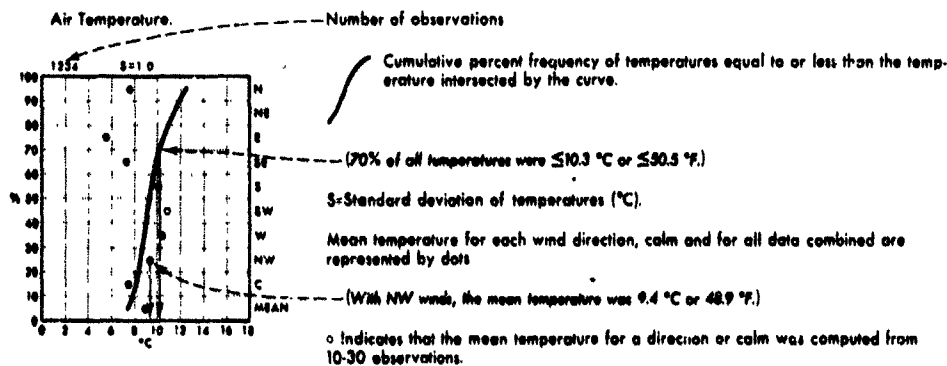
SURF



SURFACE AIR TEMPERATURE



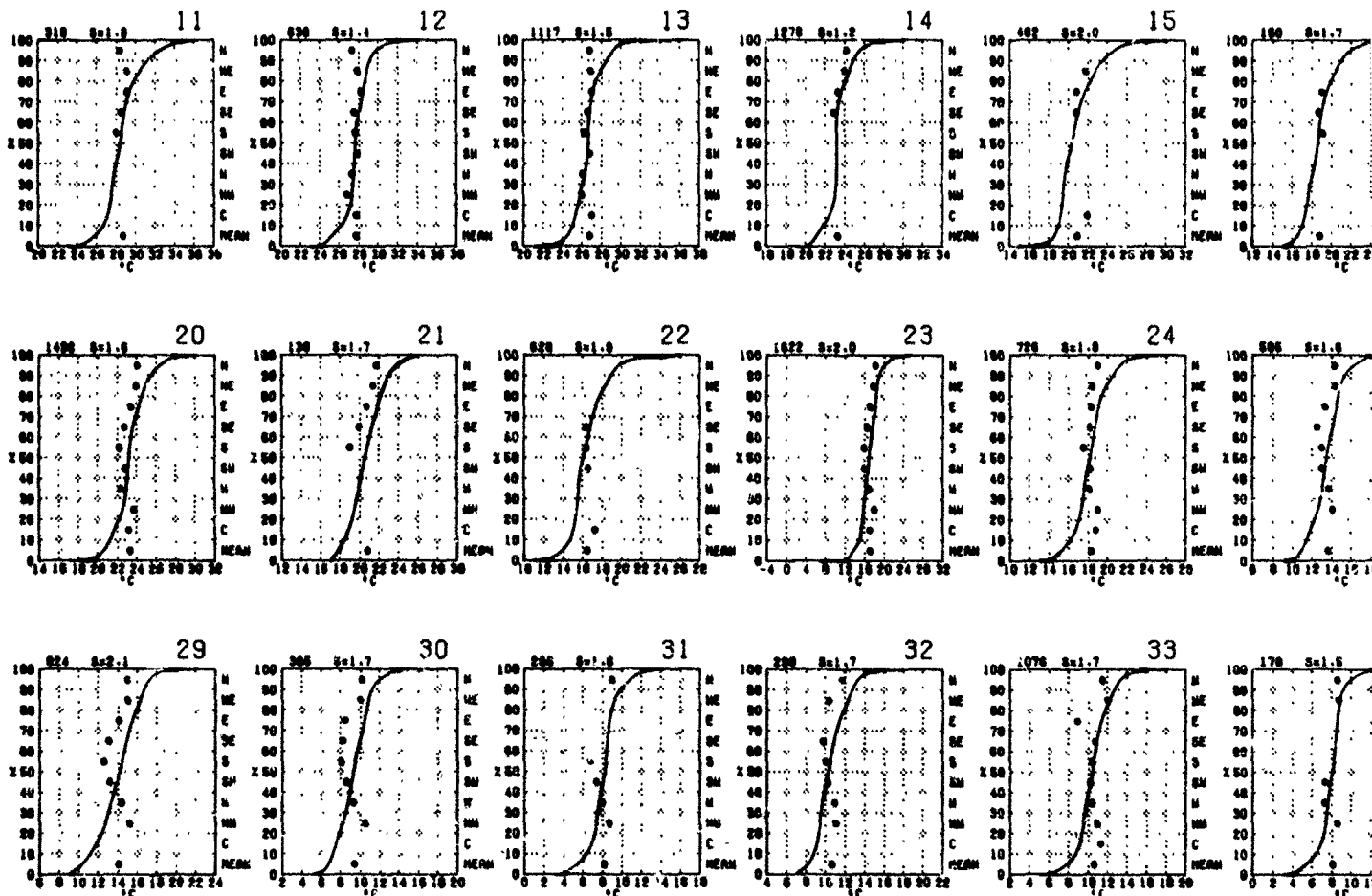
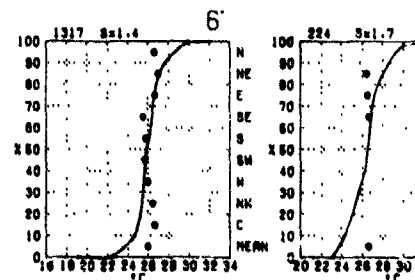
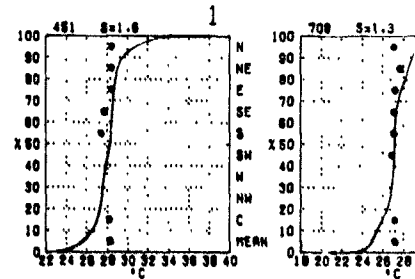
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available

BLACK LINE - Mean air temperature (°C)

RED LINE - Percent frequency of temperature ≥ 20 °C (68°F)



Graphs represent the objective compilation of available data for specified areas witho
The isopleth analyses (opposite page) are based on all available data subjectively ad

TURE

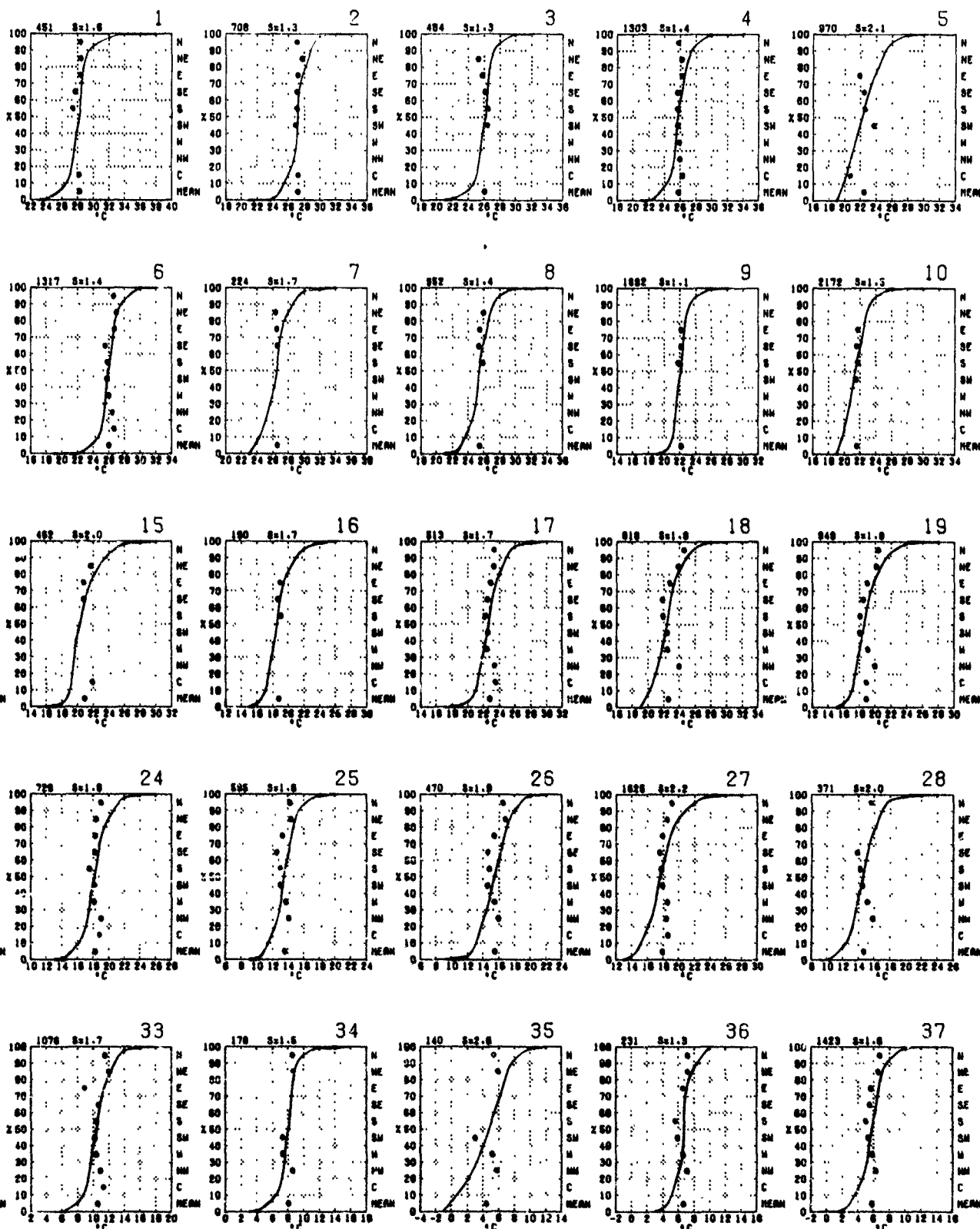
NOVEMBER

to or less than the temp.

data combined are

was computed from

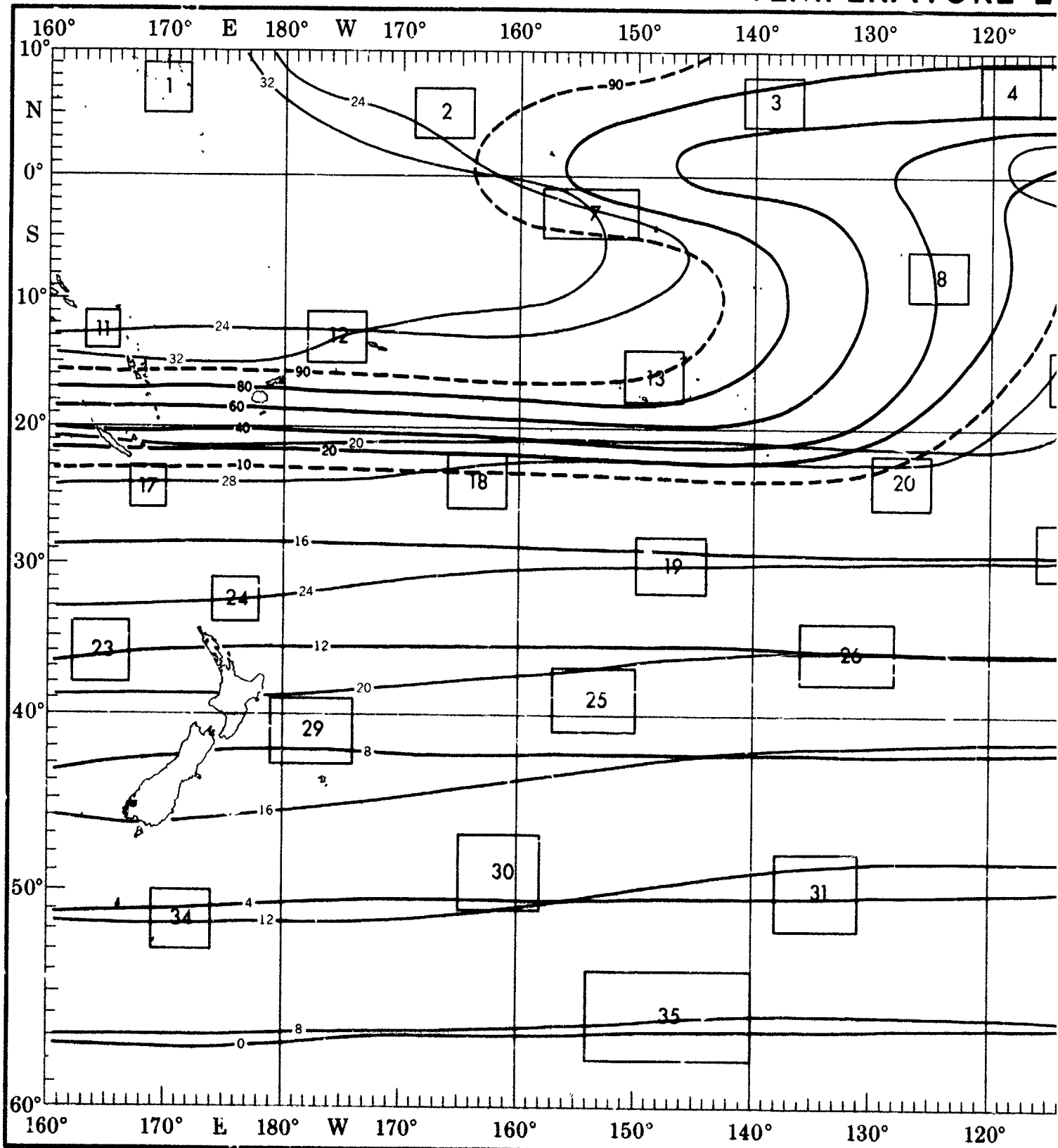
table



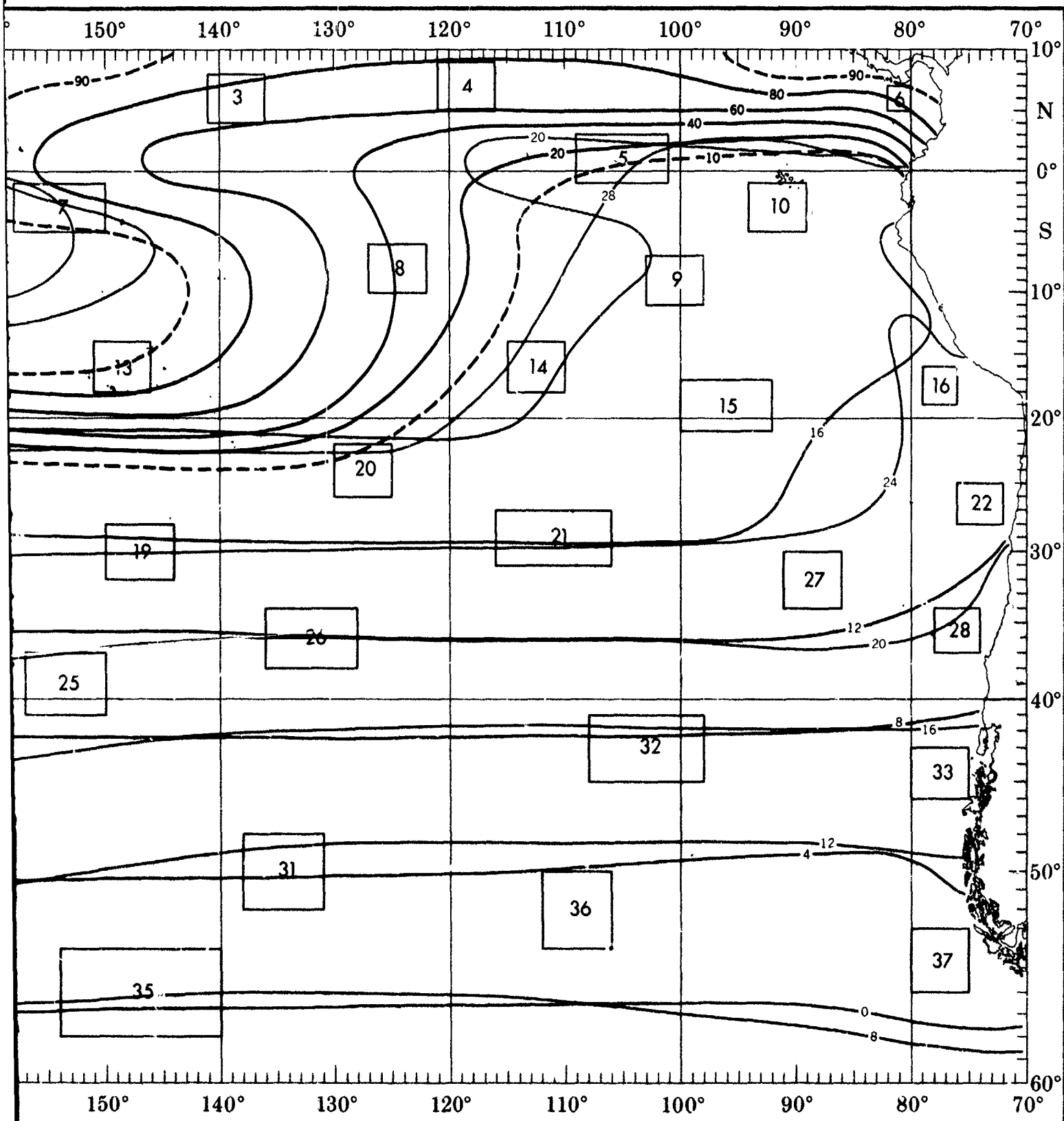
objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

NOVEMBER

TEMPERATURE E



TEMPERATURE EXTREMES AND T-H INDEX



WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots).

WIND SPEED (KTS)

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
4.4	1	1	1	1	1
2.3	1	1	1	1	1
0.1	1	1	1	1	1
-2.1	1	1	1	1	1
-4.2	1	1	1	1	1
-6.3	1	1	1	1	1
-8.4	1	1	1	1	1
-10.5	1	1	1	1	1
-12.6	1	1	1	1	1
-14.7	1	1	1	1	1
-16.8	1	1	1	1	1
-18.9	1	1	1	1	1
-21.0	1	1	1	1	1
-23.1	1	1	1	1	1
-25.2	1	1	1	1	1
-27.3	1	1	1	1	1
-29.4	1	1	1	1	1
-31.5	1	1	1	1	1
-33.6	1	1	1	1	1
-35.7	1	1	1	1	1
-37.8	1	1	1	1	1
-39.9	1	1	1	1	1
-42.0	1	1	1	1	1
-44.1	1	1	1	1	1
-46.2	1	1	1	1	1
-48.3	1	1	1	1	1
-50.4	1	1	1	1	1
-52.5	1	1	1	1	1
-54.6	1	1	1	1	1
-56.7	1	1	1	1	1
-58.8	1	1	1	1	1
-60.9	1	1	1	1	1
-63.0	1	1	1	1	1
-65.1	1	1	1	1	1
-67.2	1	1	1	1	1
-69.3	1	1	1	1	1
-71.4	1	1	1	1	1
-73.5	1	1	1	1	1
-75.6	1	1	1	1	1
-77.7	1	1	1	1	1
-79.8	1	1	1	1	1
-81.9	1	1	1	1	1
-84.0	1	1	1	1	1
-86.1	1	1	1	1	1
-88.2	1	1	1	1	1
-90.3	1	1	1	1	1
-92.4	1	1	1	1	1
-94.5	1	1	1	1	1
-96.6	1	1	1	1	1
-98.7	1	1	1	1	1
-100.8	1	1	1	1	1

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts)

+ Indicates < 5% but > 0.

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

WIND SPEED (KTS) 1

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
38.37	0	+	0	0	0
34.38	0	0	+	0	0
32.33	0	2	+	0	0
30.31	2	6	2	+	0
28.28	8	31	19	+	0
26.27	2	11	10	+	0
24.26	0	1	3	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

WIND SPEED (KTS) 1

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	+	+
30.31	+	2	1	+	+
28.28	3	23	11	+	+
26.27	4	25	21	+	+
24.26	1	4	3	+	+
22.23	0	0	+	+	+
20.21	0	0	0	+	+
18.19	0	0	0	0	+
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

BLACK LINE - Percent frequency of T-H index ≥ 24°C (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE - Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 6

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	0	0	0
30.31	+	1	+	0	0
28.28	2	7	3	0	0
26.27	4	33	18	+	0
24.26	2	17	12	+	0
22.23	+	1	1	0	0
20.21	0	+	0	0	0
18.19	0	+	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 6

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	+	+
30.31	+	2	1	+	+
28.28	0	13	6	+	+
26.27	1	27	27	+	+
24.26	0	7	10	+	+
22.23	0	1	1	+	+
20.21	0	0	0	+	+
18.19	0	0	0	0	+
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 11

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	1	1	+	0	0
32.33	1	4	1	0	0
30.31	3	11	3	+	0
28.28	6	28	13	1	0
26.27	1	10	12	0	0
24.26	0	1	2	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0

WIND SPEED (KTS) 12

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	+	1	0	0	0
32.33	1	3	2	0	0
30.31	5	27	16	+	0
28.28	4	20	17	1	0
26.27	+	1	2	+	0
24.26	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 13

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	0	+	0	0	0
32.33	+	+	+	0	0
30.31	+	2	1	0	0
28.28	2	11	10	+	0
26.27	5	28	24	1	0
24.26	1	6	7	1	0
22.23	0	1	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 14

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	+	0	0	0	0
32.33	0	+	+	0	0
30.31	+	2	2	0	0
28.28	1	11	19	1	0
26.27	1	19	38	3	0
24.26	+	2	3	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 15

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	0	1	0	0	0
32.33	+	2	+	+	0
30.31	1	4	3	0	0
28.28	2	6	13	2	0
26.27	2	10	30	3	0
24.26	1	5	13	2	0
22.23	0	+	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 15

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	0	0	0	1	0
32.33	0	1	1	+	0
30.31	1	2	3	+	0
28.28	1	6	12	+	0
26.27	1	27	27	+	0
24.26	2	6	8	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 20

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	+	0	0	0
28.28	+	1	1	0	0
26.27	1	4	3	+	0
24.26	3	14	15	1	+
22.23	4	20	21	3	0
20.21	1	2	4	1	0
18.19	0	+	1	+	0
16.17	0	0	+	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 21

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	2	5	0	1	0
32.33	3	14	8	2	0
30.31	1	27	13	2	0
28.28	2	12	6	0	0
26.27	0	0	0	2	0
24.26	0	0	0	0	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 22

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
34.38	+	+	+	0	0
32.33	+	1	+	0	0
30.31	1	2	1	0	0
28.28	2	10	7	1	0
26.27	3	17	18	3	0
24.26	3	9	16	3	0
22.23	+	1	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.16	0	0	0	0	0
12.15	0	0	0	0	0

WIND SPEED (KTS) 23

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	0	+	0	0	0
28.28	0	+	0	0	0
26.27	+	1	+	0	0
24.26	+	3	3	1	+
22.23	2	12	14	4	+
20.21	2	13	18	5	+
18.19	1	6	8	2	1
16.17	+	1	1	+	+
14.16	0	0	0	0	0
12.15	0	0	0	0	0
10.11	0	0	0	0	0
8.09	0	0	0	0	0
6.07	0	0	0	0	0

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.28	+	+	0	0	0
32.33	1	2	2	0	0
30.31	2	9	8	1	+
10.10	3	10	21	3	+
10.17	3	12	10	3	0
10.16	+	2	2	1	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
0.0	0	0	0	0	0
0.7	0	0	0	0	0
4.6	0	0	0	0	0

TEMPERATURE

NOVEMBER

(°C) and wind speed

speed of 22-33 kts)

ained in the text

to heat)

in the given value)

given value)

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.37	0	+	0	0	0
34.38	0	0	+	0	0
32.33	0	2	+	0	0
30.31	2	6	2	+	0
28.29	8	31	19	+	0
26.27	2	11	10	+	0
24.25	0	1	3	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

WIND SPEED (KTS) 2

TEMP (°C)	0-3	4-10	11-21	22-33	34
32.33	0	+	+	0	0
30.31	+	2	1	0	0
28.29	3	23	11	1	0
26.27	4	25	21	1	0
24.25	1	4	3	+	0
22.23	0	0	+	0	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 3

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	1	0	0
28.29	+	6	7	0	0
26.27	2	30	30	1	0
24.25	2	10	9	+	0
22.23	0	+	1	+	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 4

TEMP (°C)	0-3	4-10	11-21	22-33	34
34.38	+	0	0	0	0
32.33	+	0	0	0	0
30.31	1	+	+	0	0
28.29	2	5	2	0	0
26.27	6	23	18	1	0
24.25	5	19	13	1	0
22.23	+	2	1	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

WIND SPEED (KTS) 5

TEMP (°C)	0-3	4-10	11-21	22-33	34
28.29	+	1	+	0	0
26.27	+	5	3	+	0
24.25	+	11	10	+	0
22.23	1	20	13	0	0
20.21	3	22	4	0	0
18.19	1	4	+	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	34
32.33	0	+	0	0	0
30.31	+	1	+	0	0
28.29	2	7	3	0	0
26.27	4	33	18	+	0
24.25	2	17	12	+	0
22.23	+	1	1	0	0
20.21	0	+	0	0	0
18.19	0	+	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 7

TEMP (°C)	0-3	4-10	11-21	22-33	34
32.33	0	+	+	0	0
30.31	+	2	1	0	0
28.29	0	13	8	1	0
26.27	1	27	27	1	0
24.25	0	7	10	+	0
22.23	0	1	1	+	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 8

TEMP (°C)	0-3	4-10	11-21	22-33	34
32.33	+	+	0	0	0
30.31	+	+	1	0	0
28.29	+	2	4	0	0
26.27	1	11	30	1	0
24.25	1	15	29	1	0
22.23	0	2	2	+	0
20.21	0	0	+	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 9

TEMP (°C)	0-3	4-10	11-21	22-33	34
28.29	0	+	0	0	0
26.27	+	+	1	0	0
24.25	0	4	5	+	0
22.23	+	25	38	1	0
20.21	+	9	15	+	0
18.19	0	+	+	+	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 10

TEMP (°C)	0-3	4-10	11-21	22-33	34
28.29	0	+	0	0	0
26.27	+	1	1	0	0
24.25	+	8	3	0	0
22.23	2	31	8	+	0
20.21	2	32	9	+	0
18.19	+	4	1	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	+	0	0	0	0
28.29	0	+	+	0	0
26.27	+	2	2	0	0
24.25	1	11	19	1	0
22.23	1	18	38	3	0
20.21	+	2	3	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	1	0	0	0
28.29	+	2	+	+	0
26.27	1	4	3	0	0
24.25	2	8	13	2	0
22.23	2	10	30	3	0
20.21	1	5	13	2	0
18.19	0	+	1	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 16

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	0	1	0	0
28.29	0	1	1	0	0
26.27	1	2	3	0	0
24.25	1	8	12	1	0
22.23	1	27	27	1	0
20.21	2	6	8	1	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 17

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	+	0	0
28.29	1	3	2	+	0
26.27	3	10	9	1	0
24.25	3	23	21	1	+
22.23	1	8	11	1	0
20.21	0	1	1	0	0
18.19	0	0	+	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 18

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	+	0	0
28.29	0	+	0	0	0
26.27	+	4	3	0	0
24.25	2	10	10	1	+
22.23	2	18	18	4	0
20.21	1	8	12	2	0
18.19	0	1	2	+	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	0	0	0
28.29	0	+	0	0	0
26.27	+	+	1	+	0
24.25	+	3	3	1	+
22.23	2	12	14	4	+
20.21	2	13	19	5	+
18.19	1	5	8	2	1
16.17	+	1	1	+	+
14.15	0	0	+	0	0
12.13	0	+	+	+	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	+	+	0	0	0
28.29	1	2	2	0	0
26.27	2	9	6	1	+
24.25	3	18	21	3	+
22.23	3	12	13	0	0
20.21	+	2	2	1	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 25

TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	0	0	0
28.29	0	0	1	1	0
26.27	+	3	6	1	1
24.25	1	9	20	5	1
22.23	2	15	18	8	2
20.21	+	3	3	2	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 26

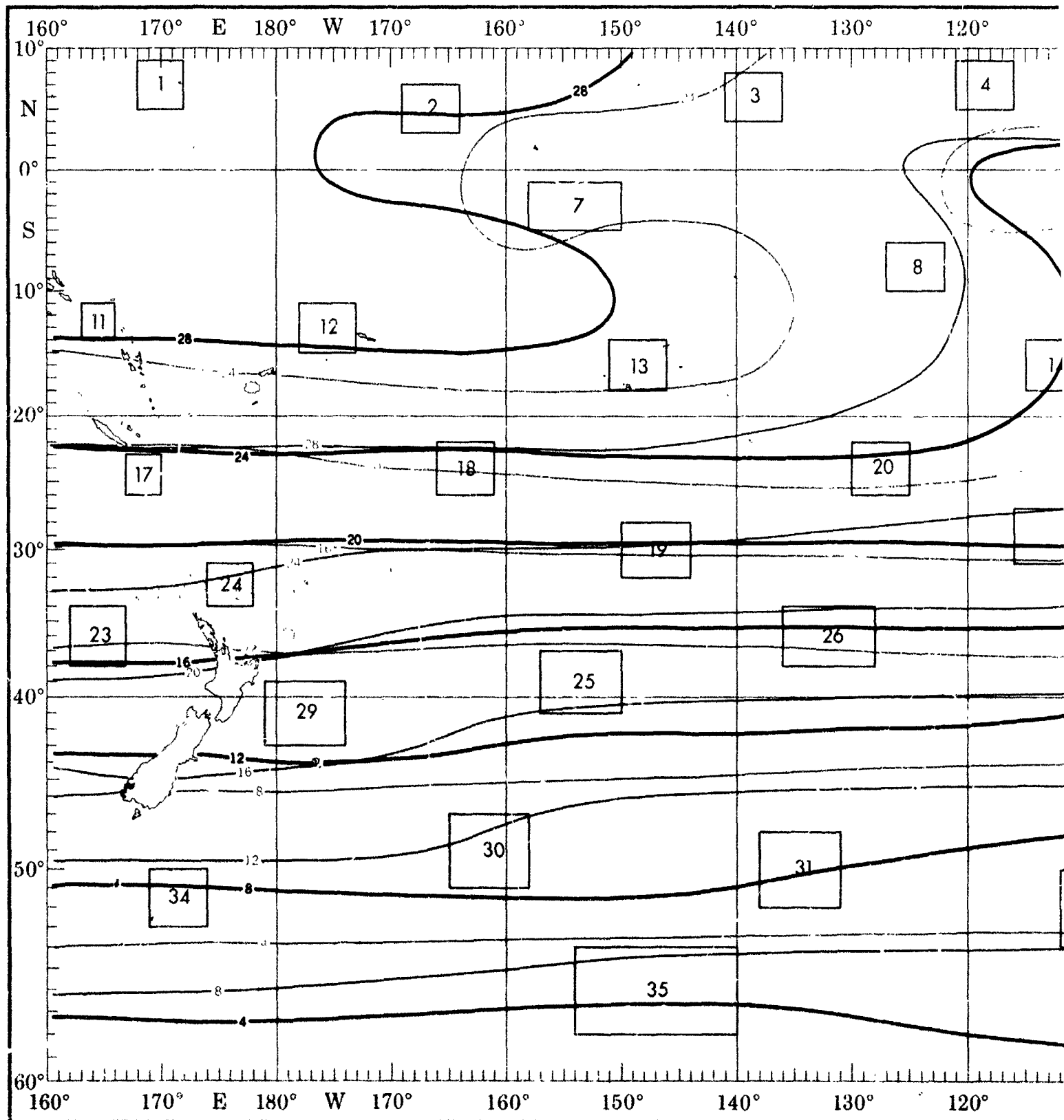
TEMP (°C)	0-3	4-10	11-21	22-33	34
30.31	0	+	1	+	0
28.29	+	7	5	1	0
26.27	3	15	17	3	1
24.25	1	10	15	5	1
22.23	0	3	7	3	1
20.21	0	0	1	1	0
18.19	0	0	+	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0

WIND SPEED (KTS) 28

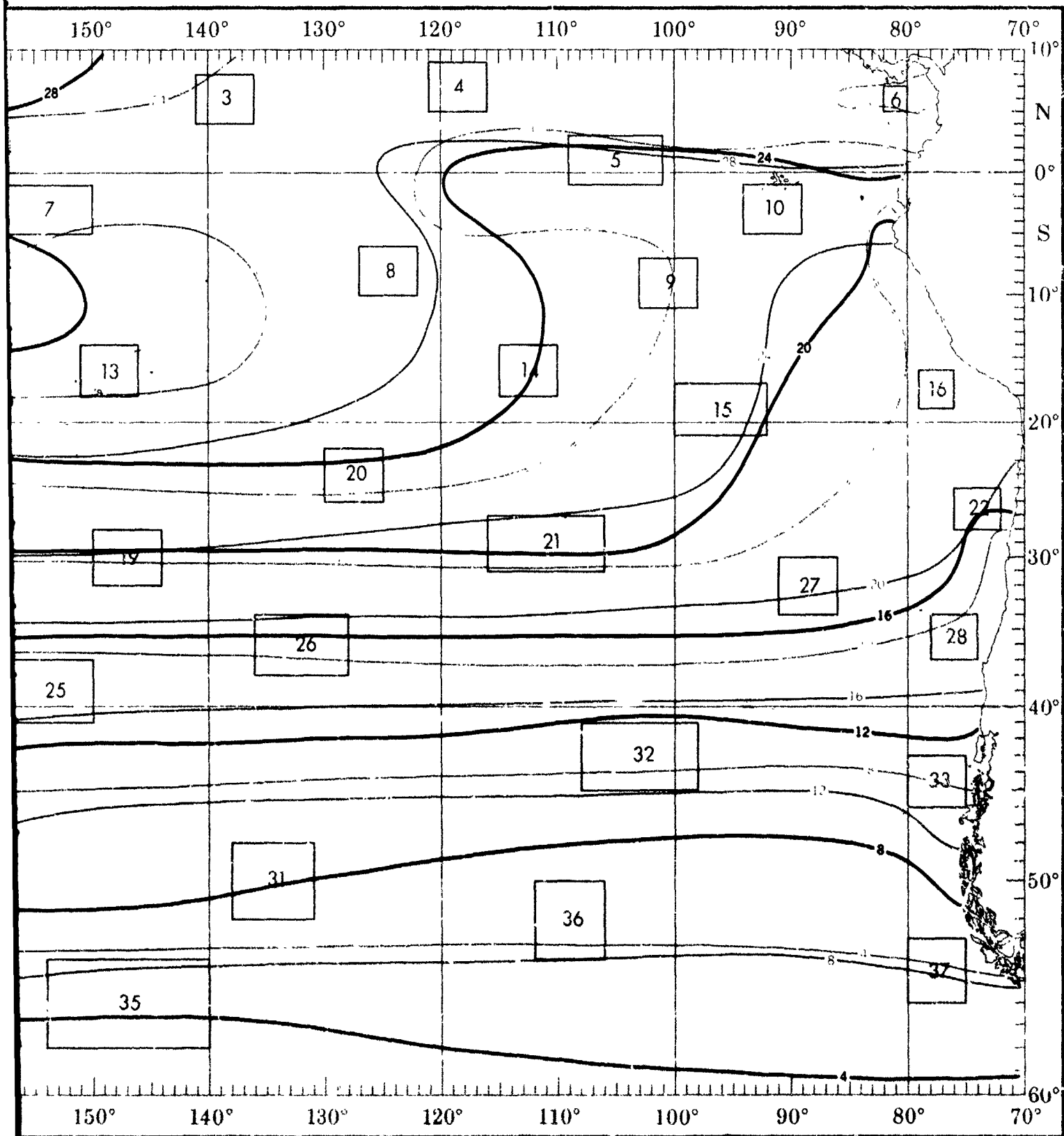
TEMP (°C)	0-3	4-10	11-20	21-30	31-36
29.03	+	0	0	0	0
28.21	+	1	+	+	0
16.10	1	4	1	+	0
16.17	2	13	7	1	+
14.16	2	18	18	5	+
13.13	+	8	8	7	+
10.11	0	2	2	1	0
8.0	0	0	0	0	0
6.7	0	0	0	0	0
4.6	0	0	0	0	0
2.3	0	0	0	0	0

NOVEMBER

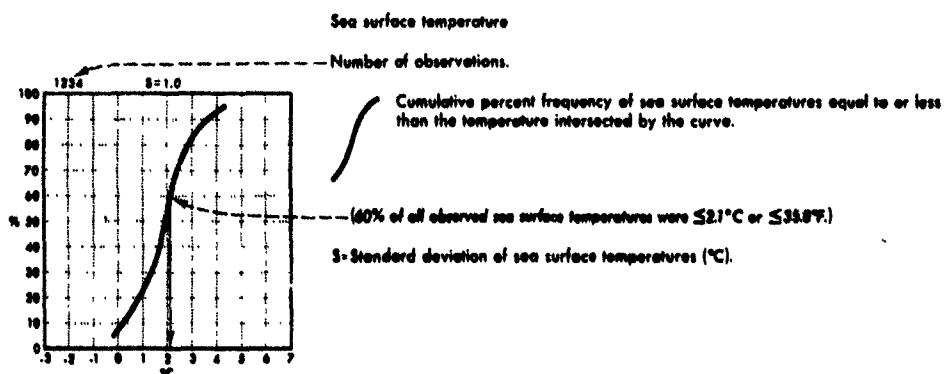
SEA



SEA SURFACE TEMPERATURE



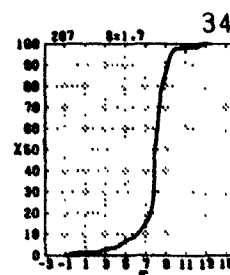
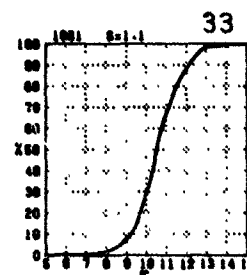
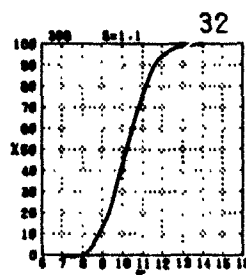
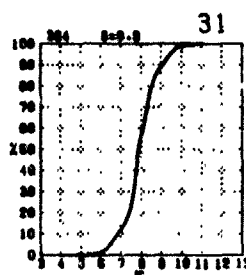
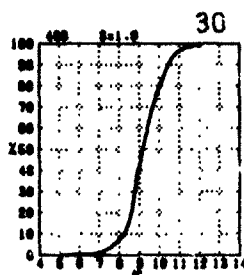
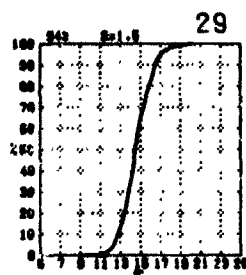
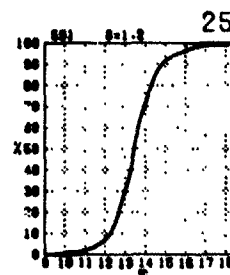
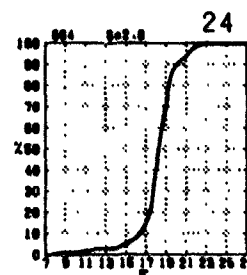
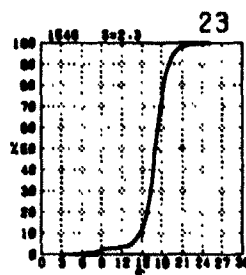
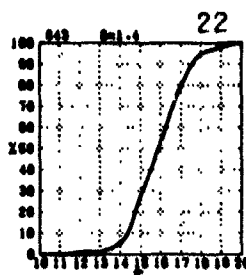
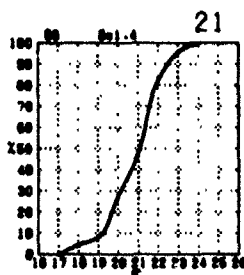
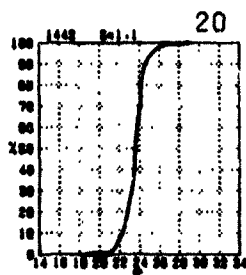
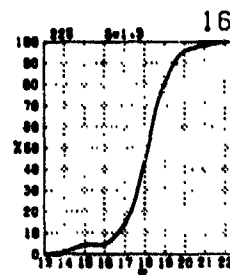
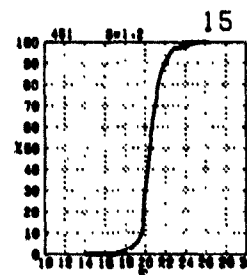
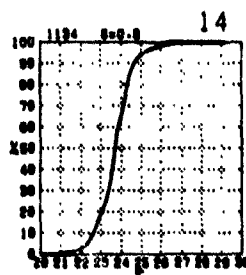
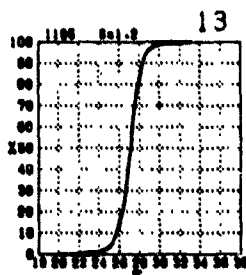
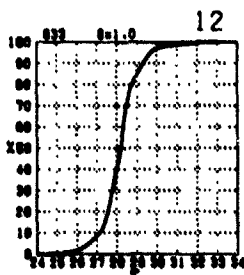
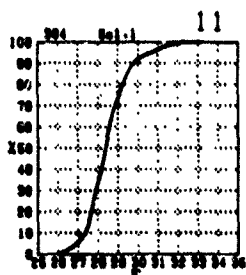
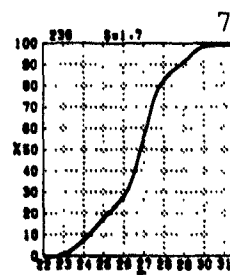
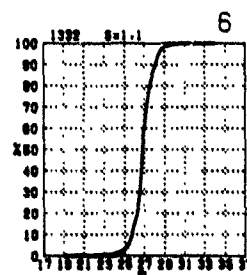
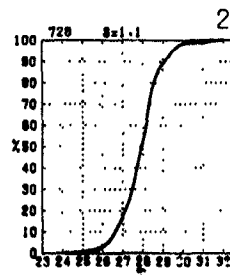
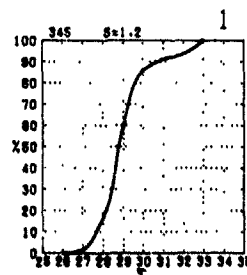
SEA SURFACE TEMPERATURE



BLACK LINE - Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE - Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE - Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

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temperatures equal to or less

°C or ≤33.8°F.)

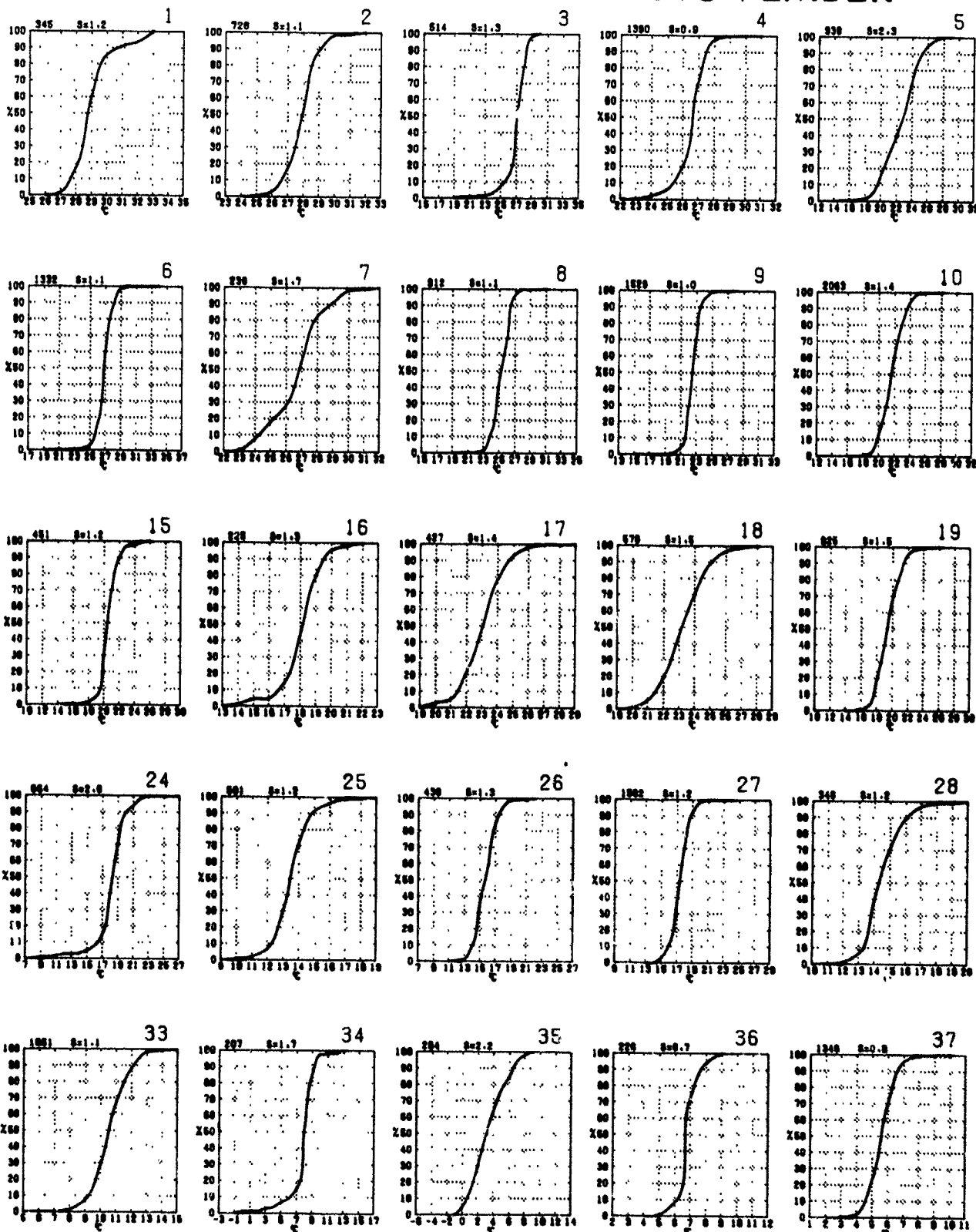
l to or less than the given

water than the given value)

3

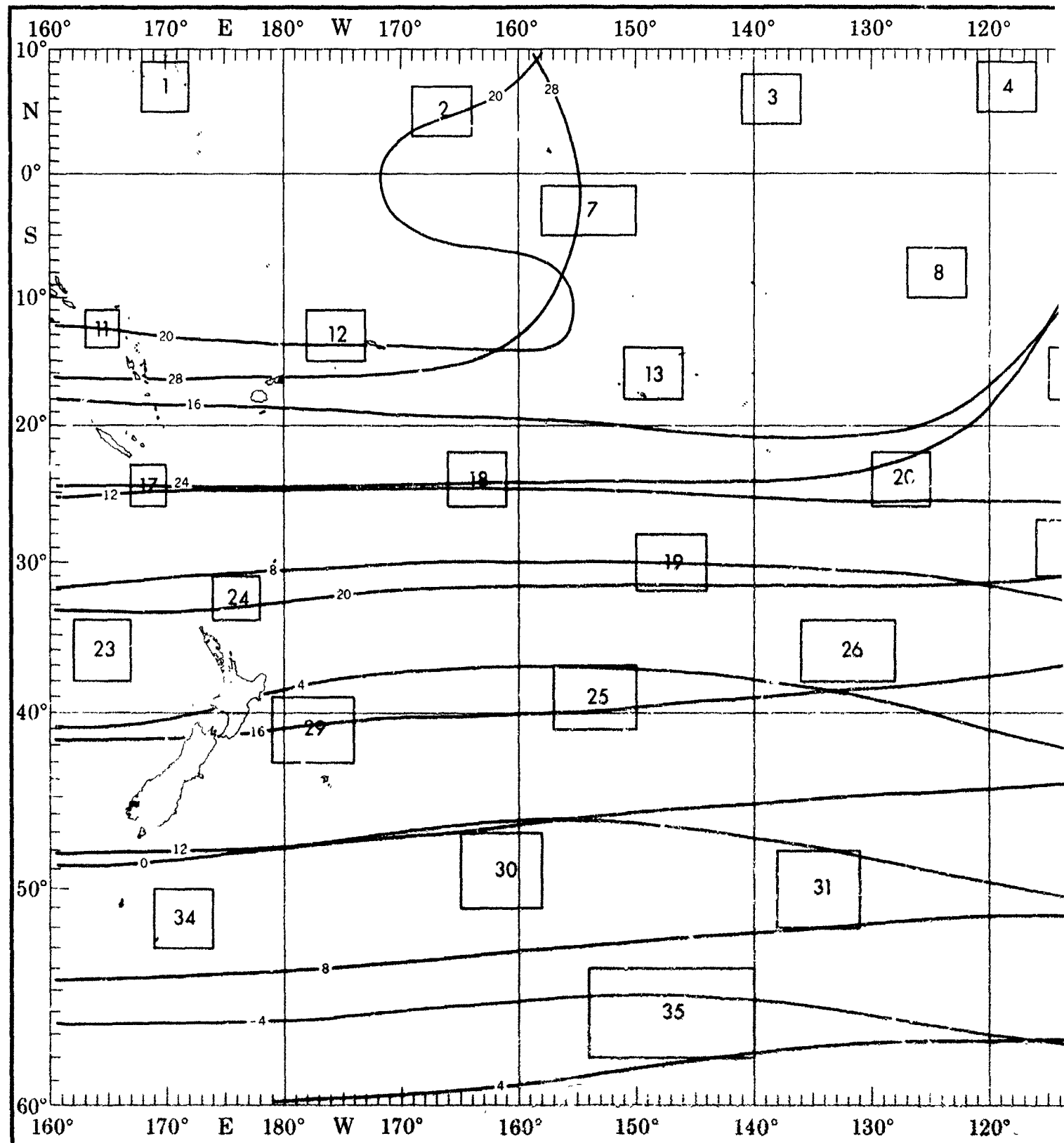
2

13

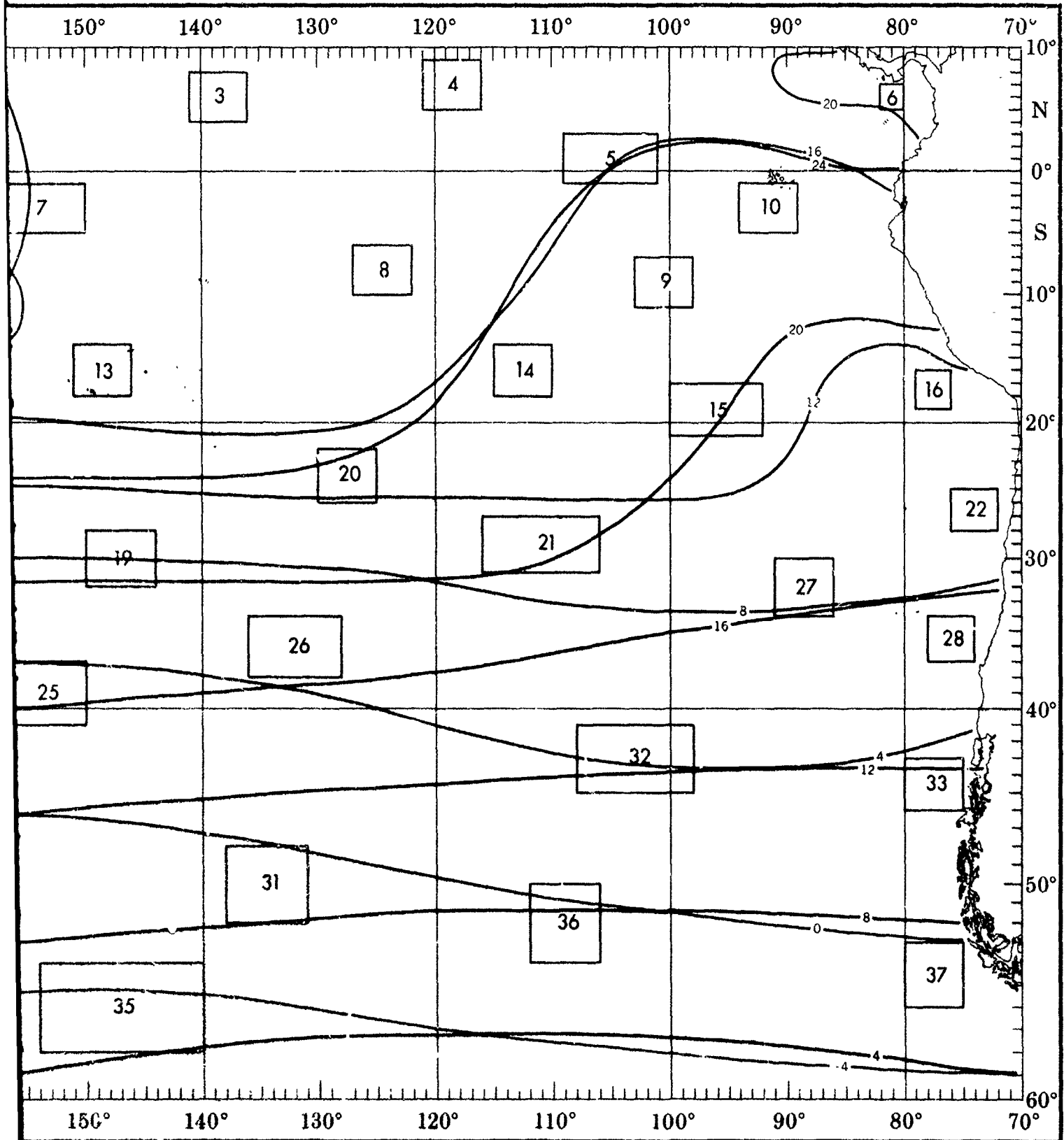


the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

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HUMIDITY



WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity.

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale)

Wet bulb (°C).

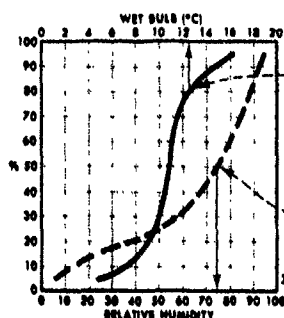
(80% of all observed wet-bulb temperatures were $\leq 12.5^\circ\text{C}$ or 54.5°F.)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale).

Relative humidity (%)

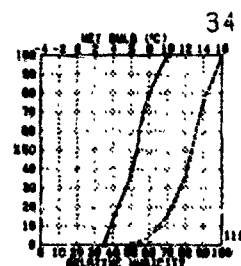
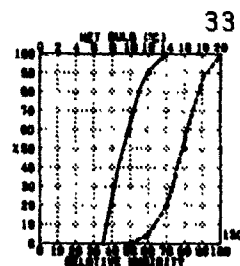
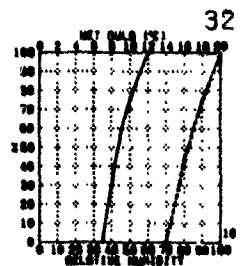
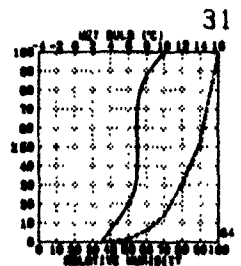
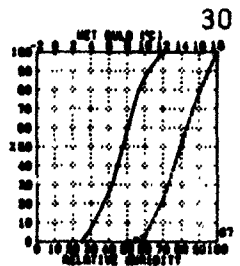
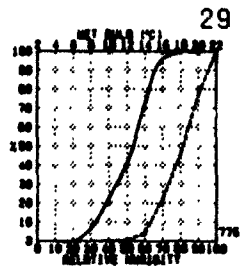
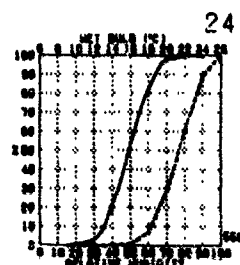
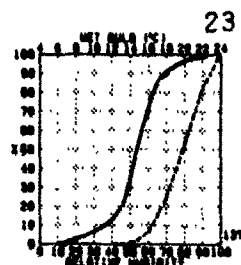
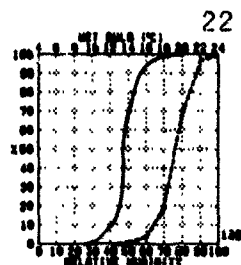
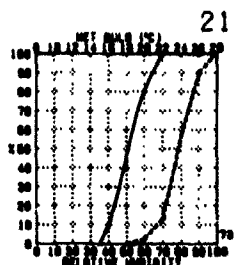
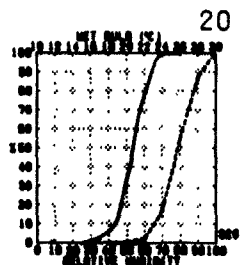
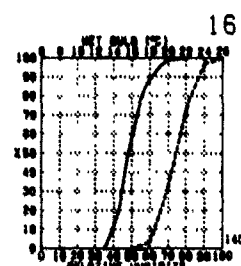
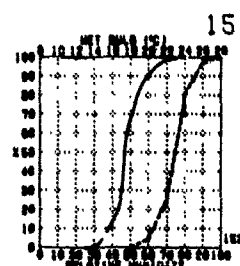
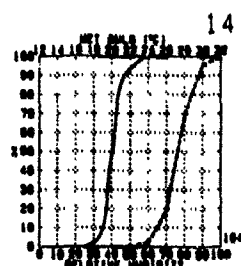
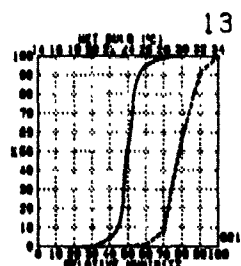
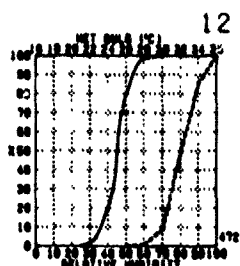
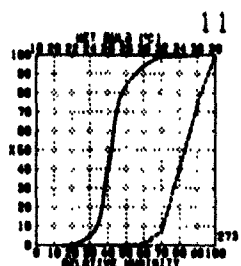
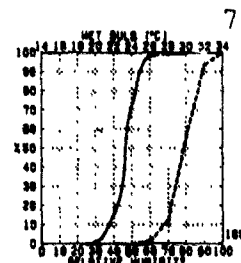
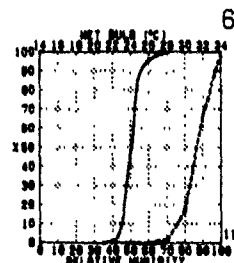
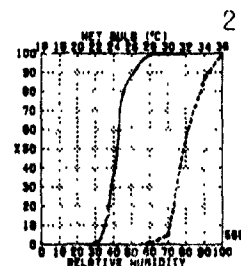
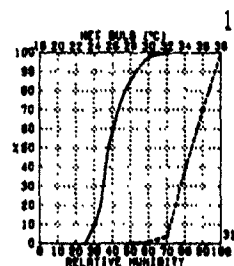
(50% of all observed relative humidities were $\leq 74\%$.)

Number of observations.



BLUE LINE - Minimum (1%) dew-point temperature (°C) (1% of the computed values were equal to or less than the given value)

RED LINE - Maximum (99%) dew-point temperature (°C) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

VE HUMIDITY

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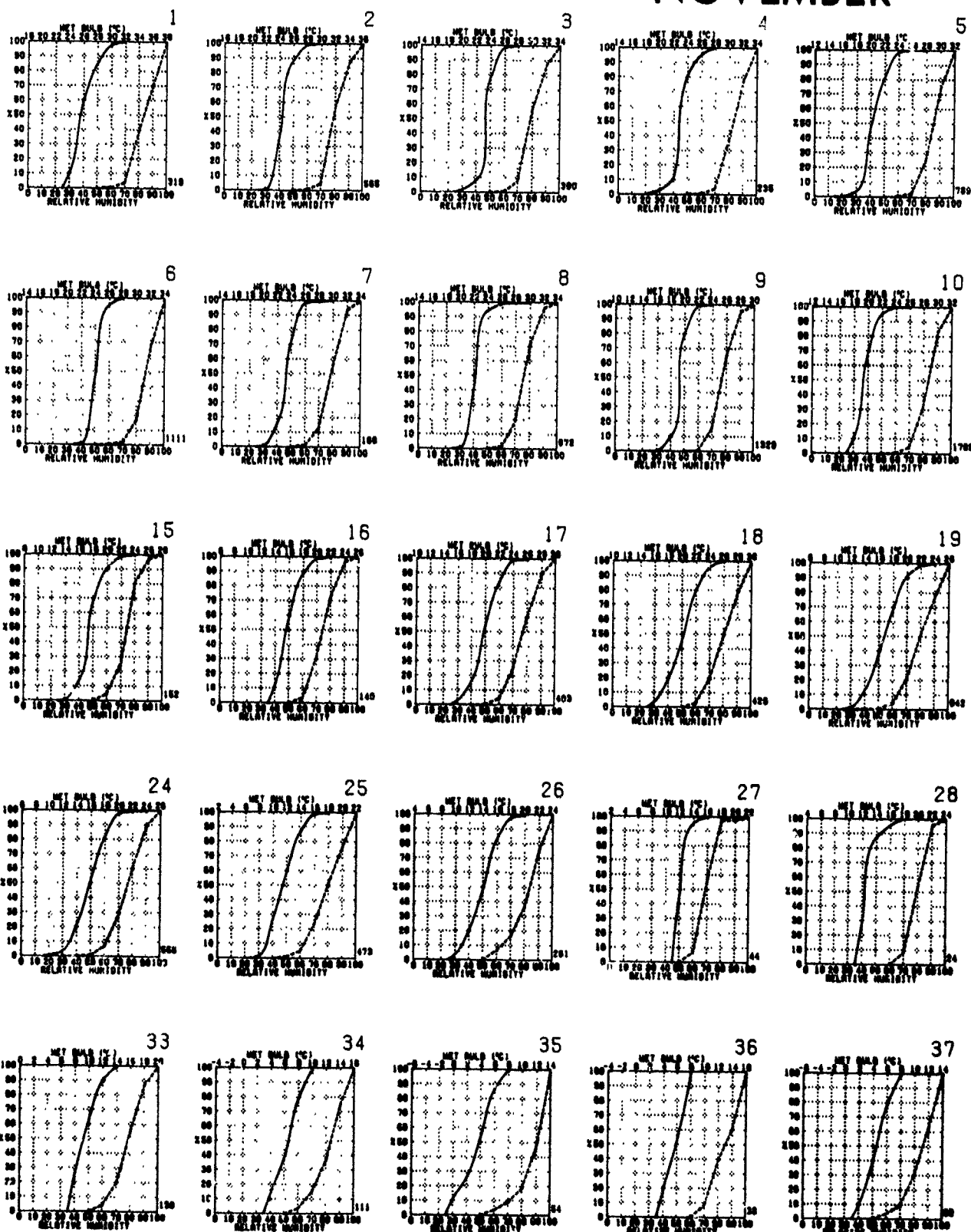
equal to or less than the

54.5°F)

to or less than the humidity

to or less than the given

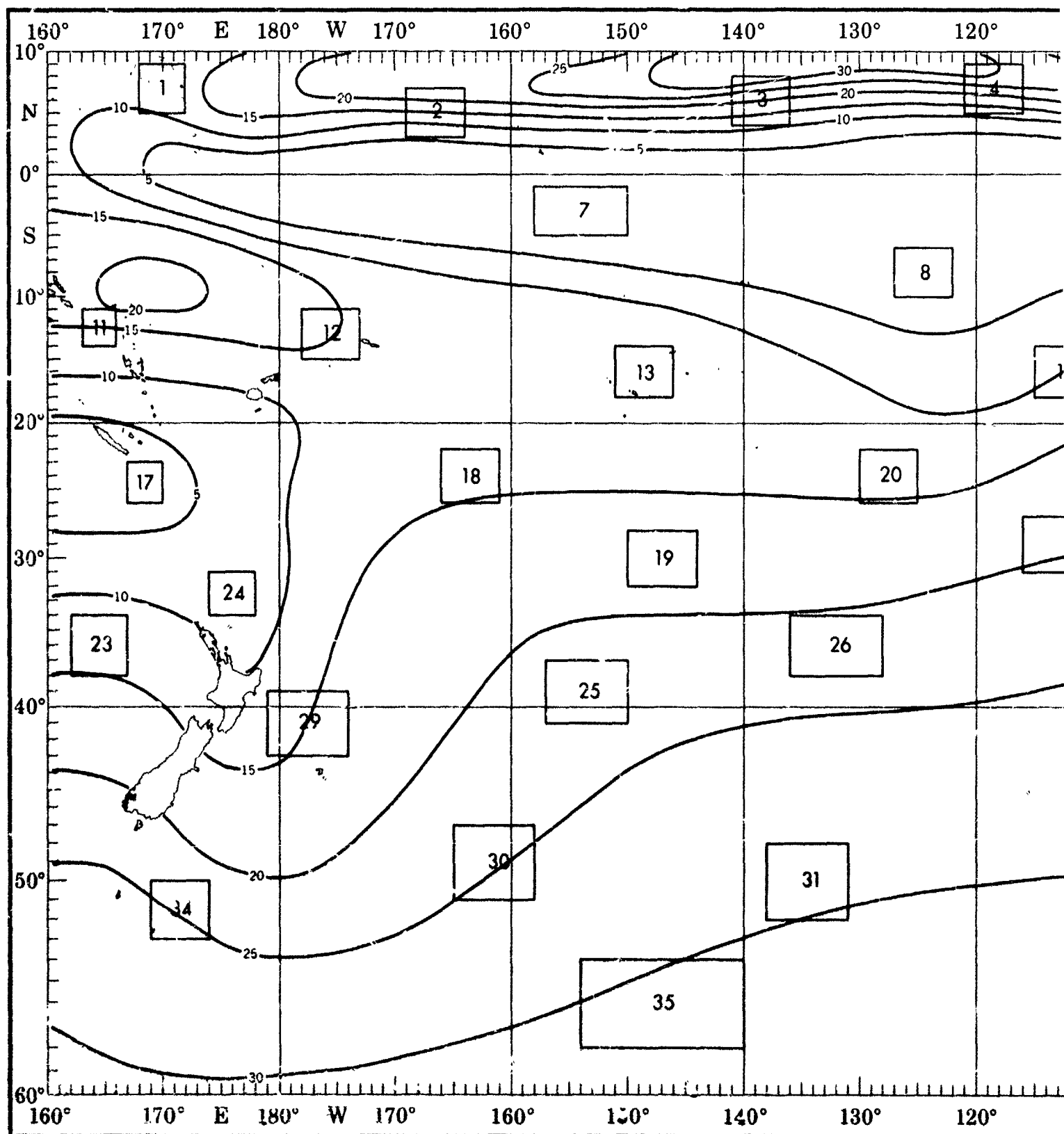
er than the given value)



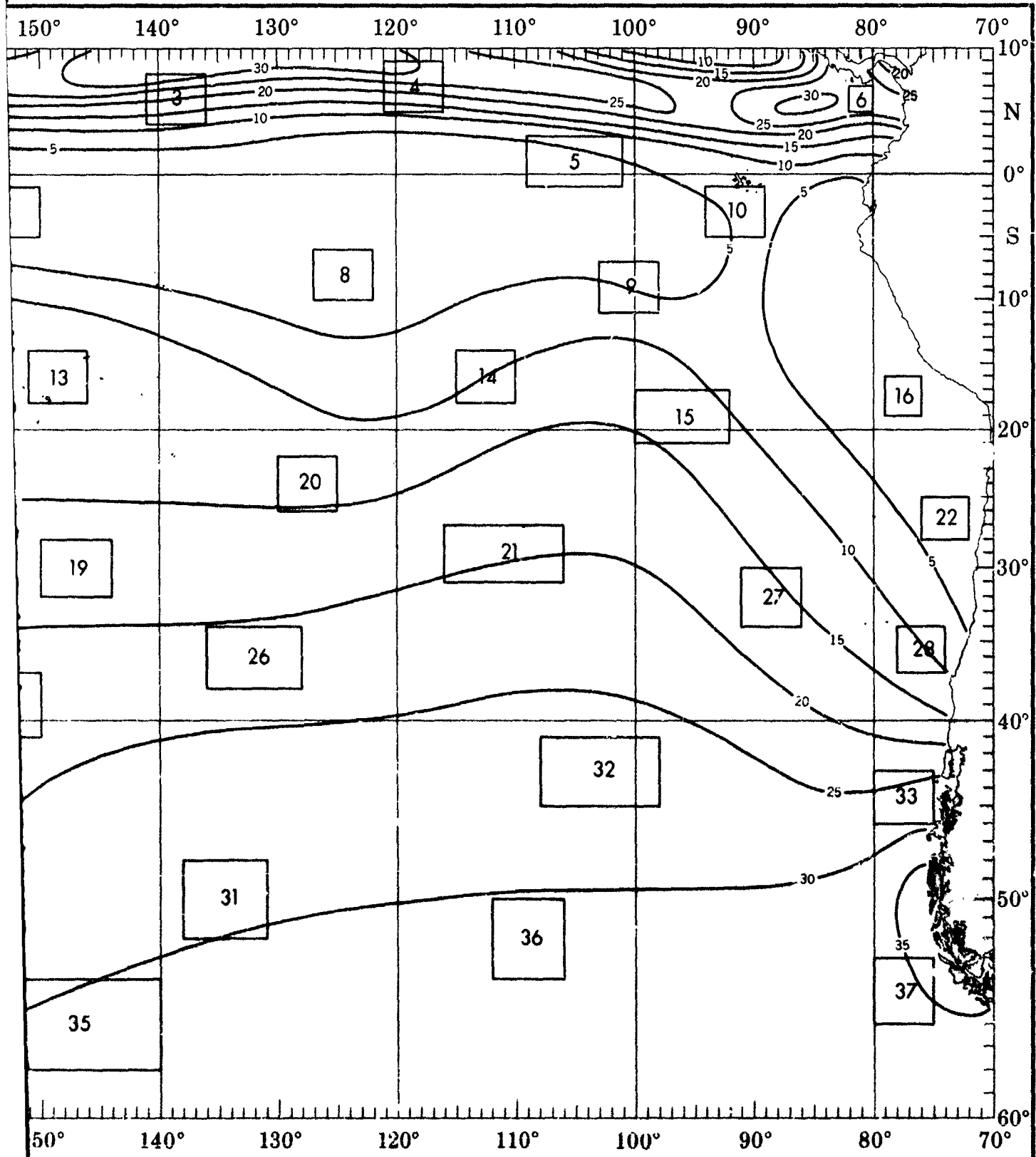
The objective compilation of available data for specified areas without regard to suspected biases.

es (opposite page) are based on all available data subjectively adjusted where bias was evident.

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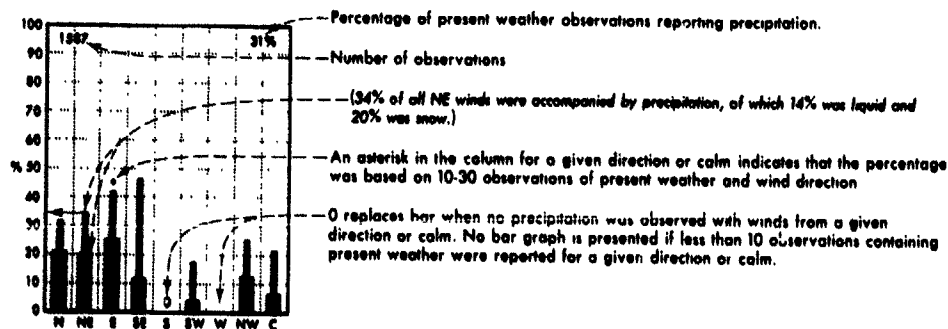
PRECIPITATION



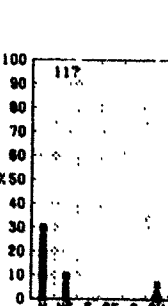
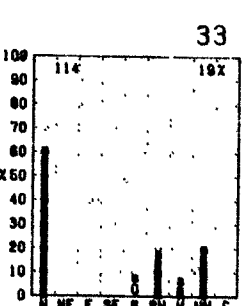
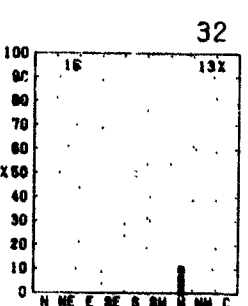
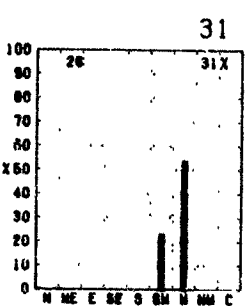
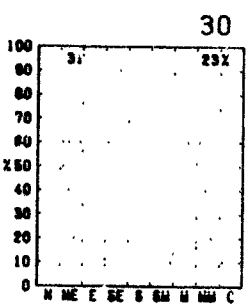
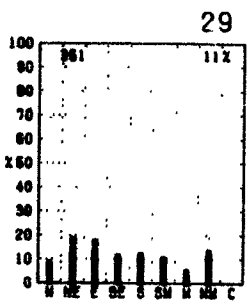
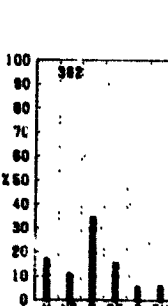
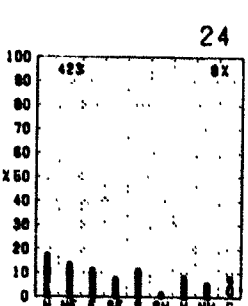
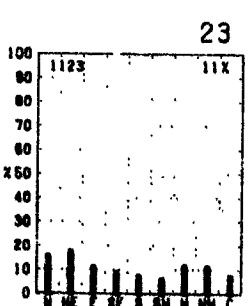
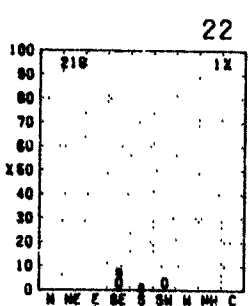
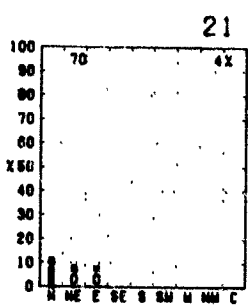
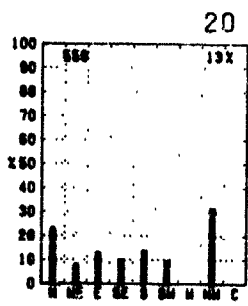
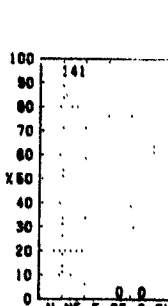
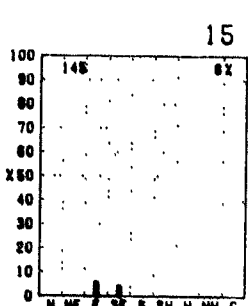
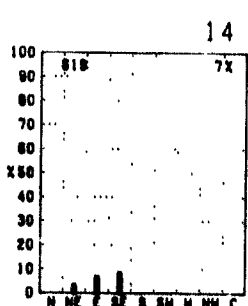
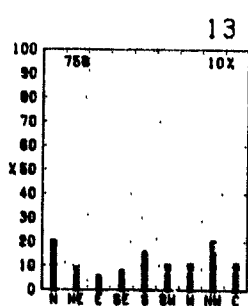
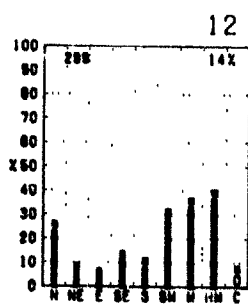
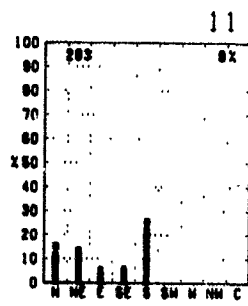
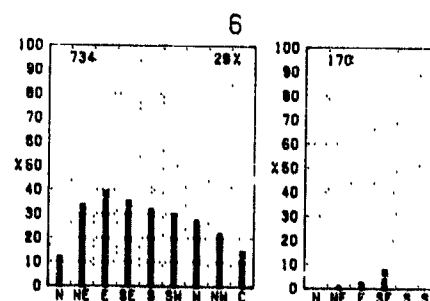
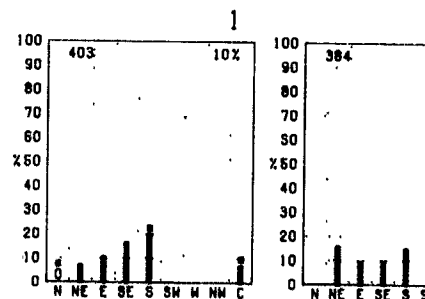
PRECIPITATION

% Pcpn. % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.

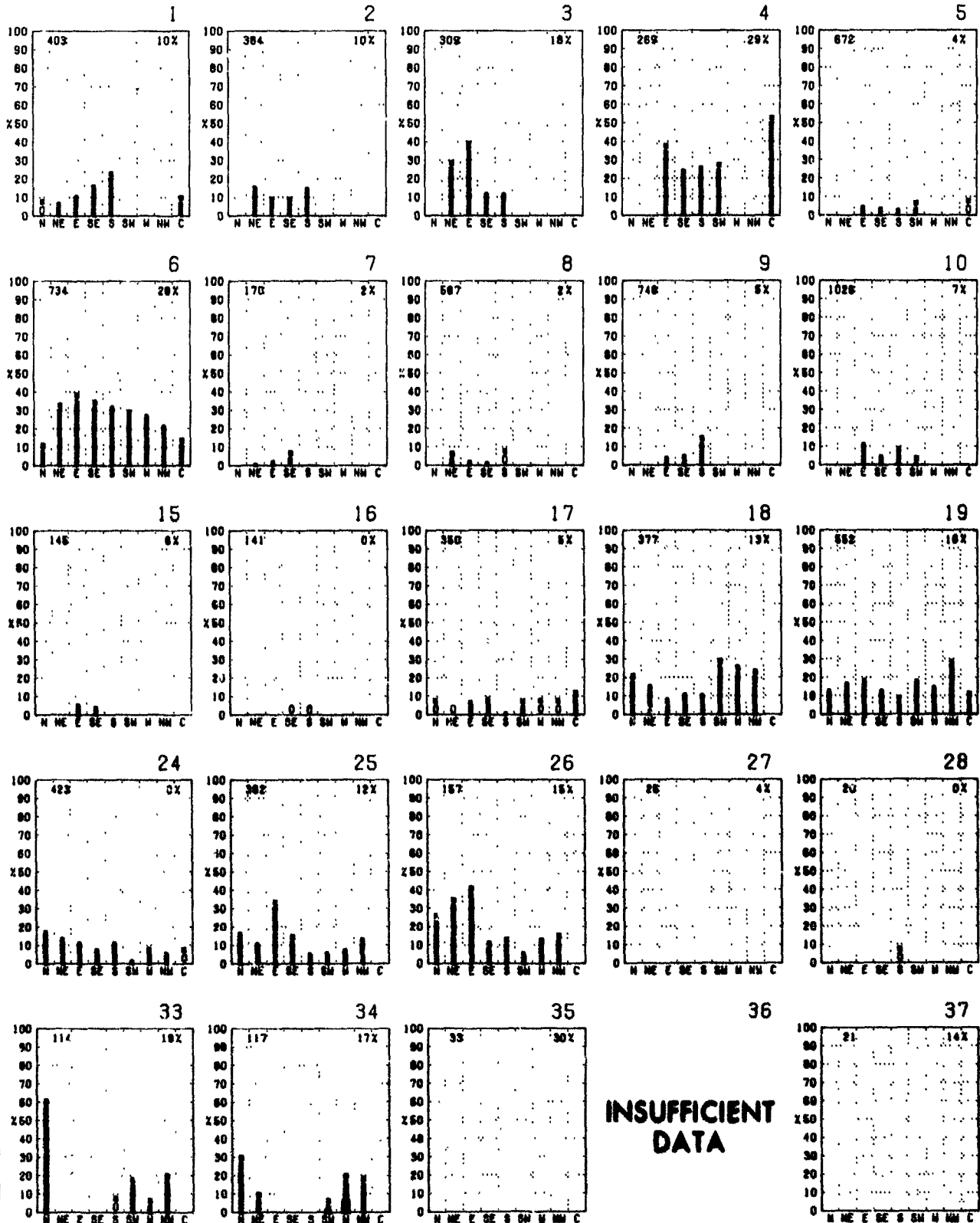


RED LINE - Percent frequency of observations reporting precipitation



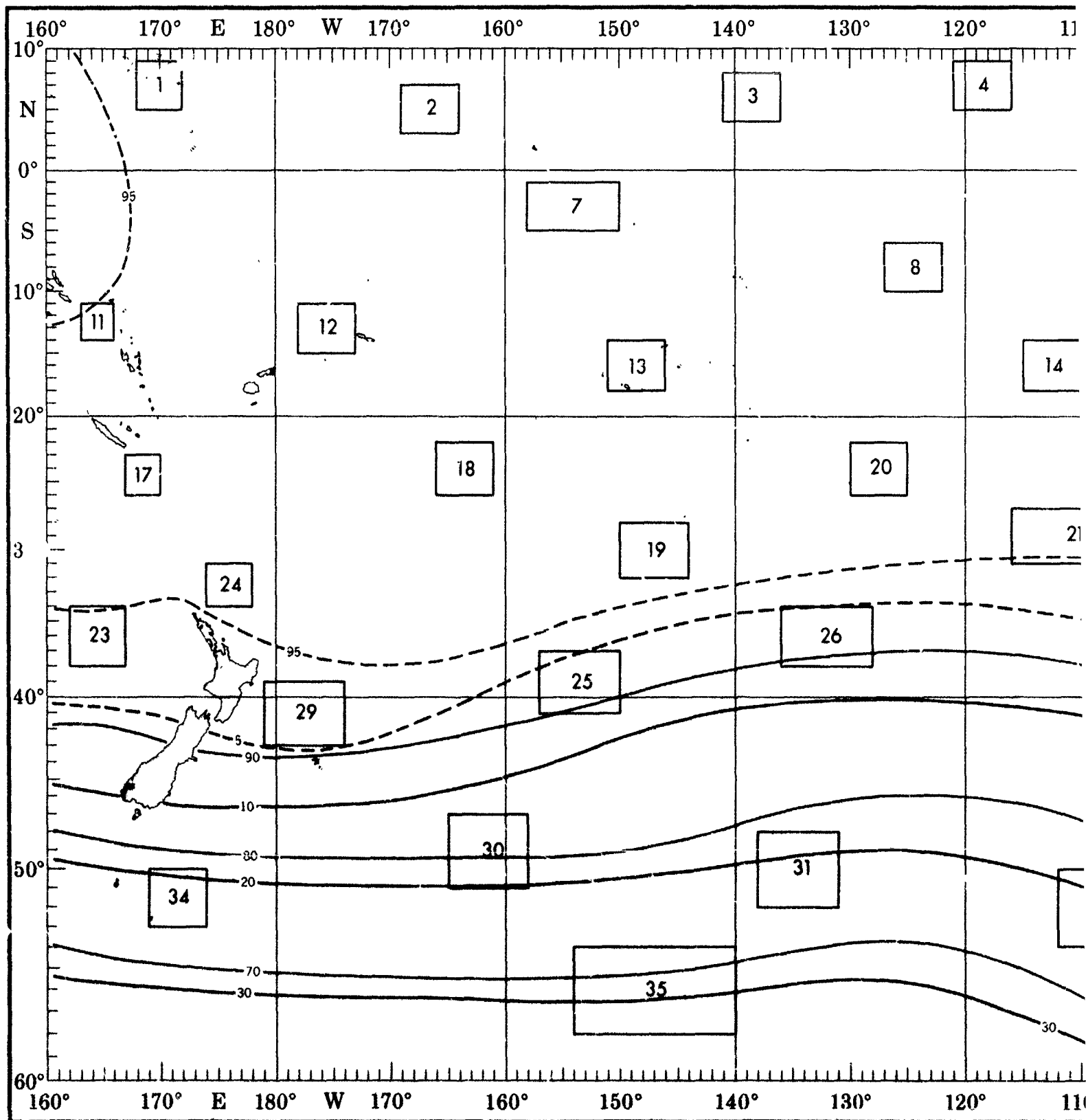
Graphs represent the objective compilation of available data for specified areas without The isopleth analyses (opposite page) are based on all available data subjectively adjusted.

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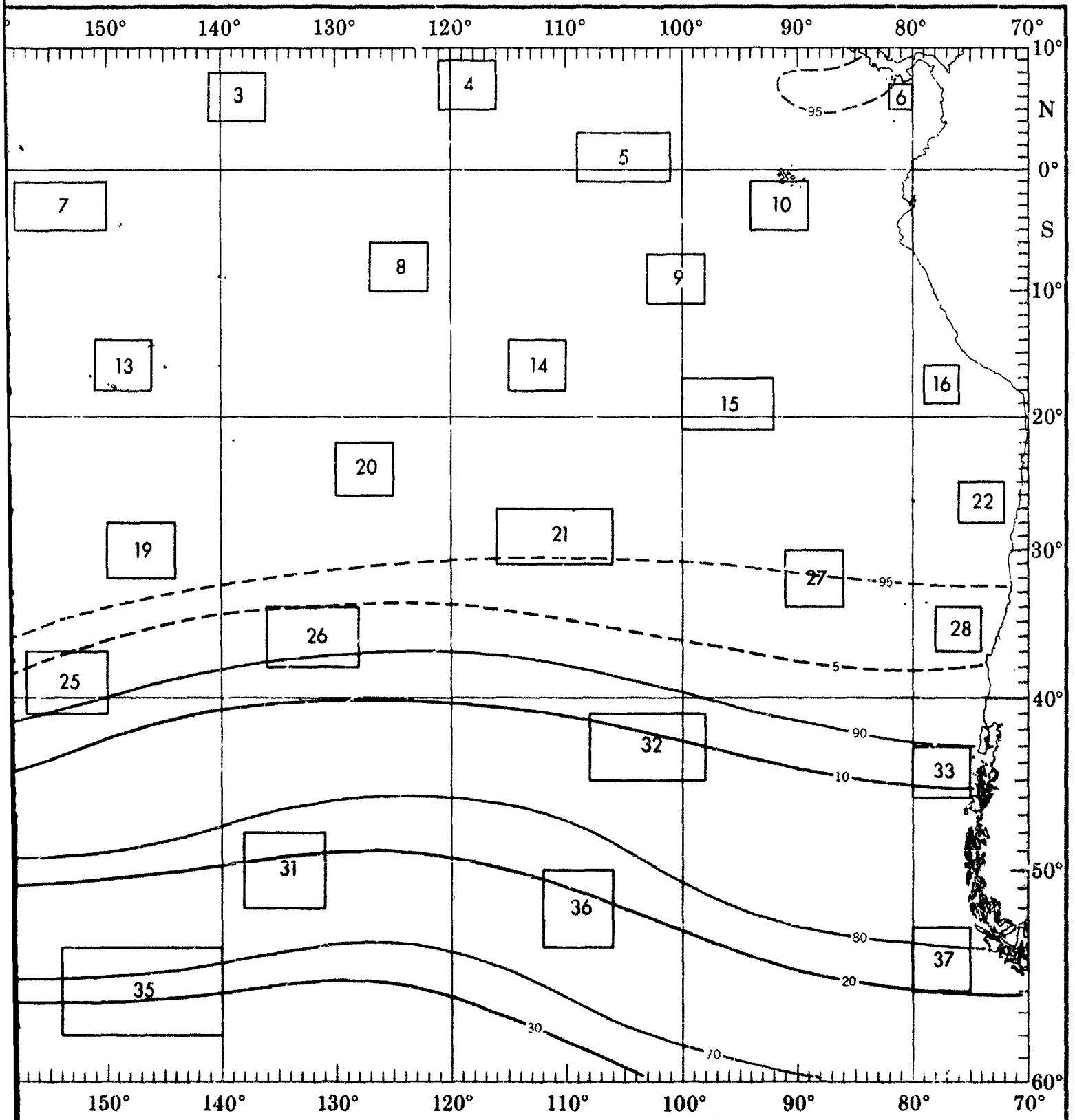


the objective compilation of available data for specified areas without regard to suspected biases.
 (opposite page) are based on all available data subjectively adjusted where bias was evident.

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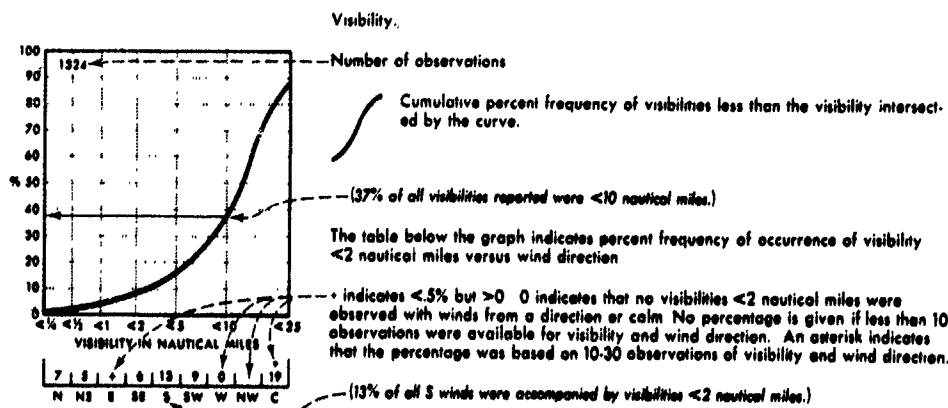


VISIBILITY



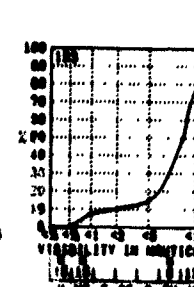
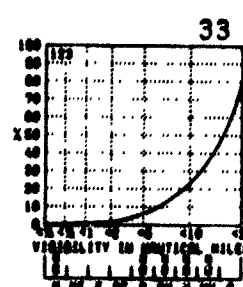
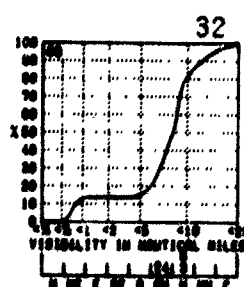
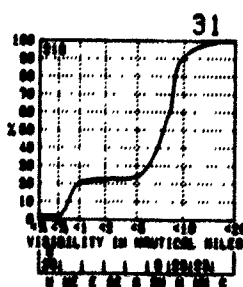
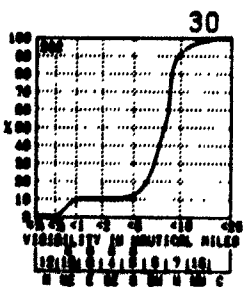
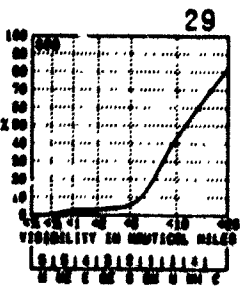
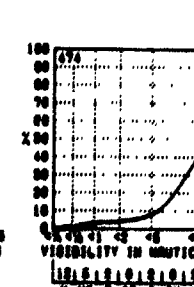
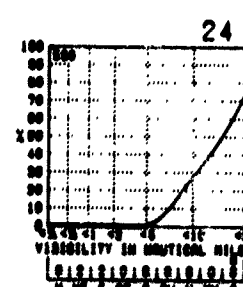
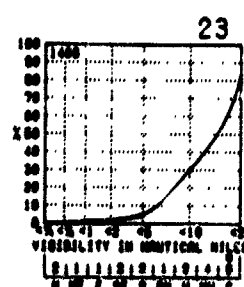
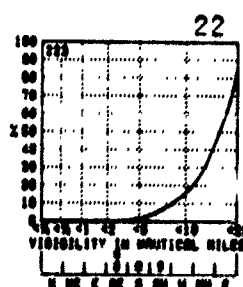
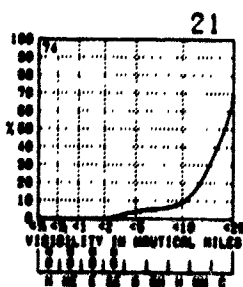
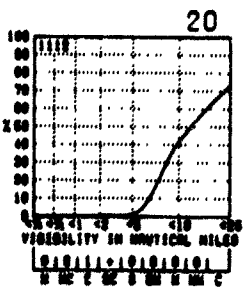
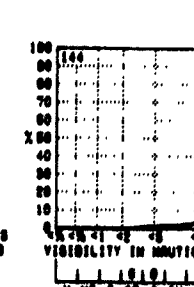
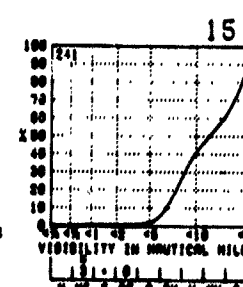
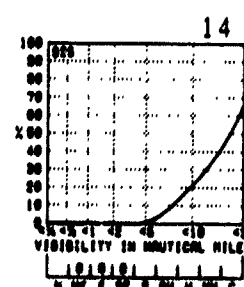
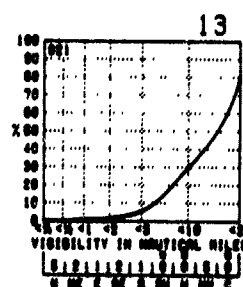
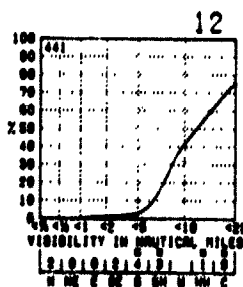
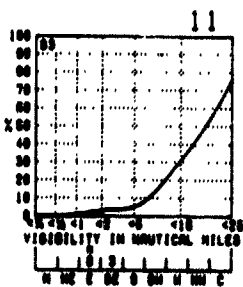
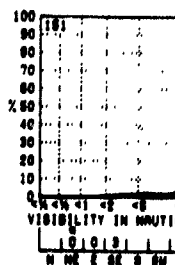
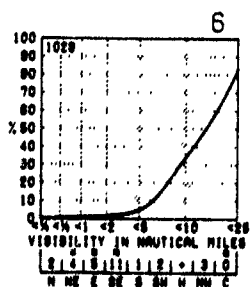
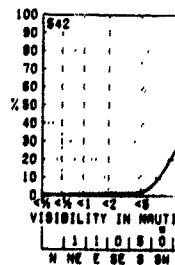
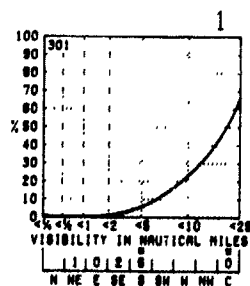
f 1 2

VISIBILITY



RED LINE - Percent frequency of visibilities ≤ 2 nautical miles

RED LINE - Percent frequency of visibilities ≤ 2 nautical miles



Graphs represent the objective compilation of available data for specified areas without The isopleth analyses (opposite page) are based on all available data subjectively adjusted

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less than the visibility intercept.

ency of occurrence of visibility

lines <2 nautical miles were
percentage is given if less than 10
direction. An asterisk indicates
ons of visibility and wind direction.

<2 nautical miles.)

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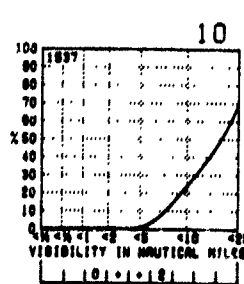
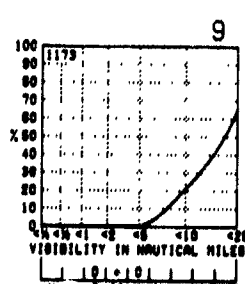
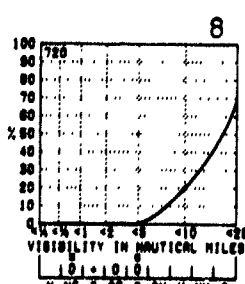
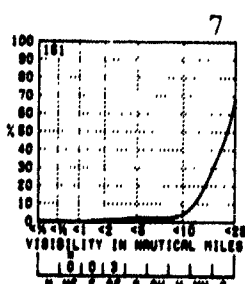
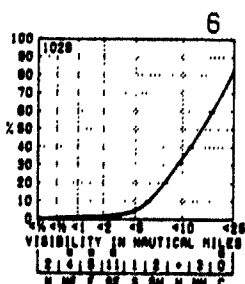
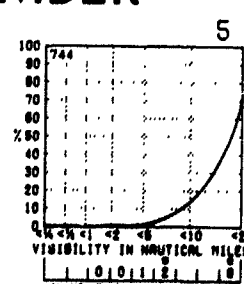
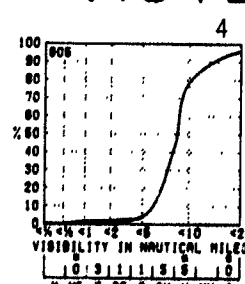
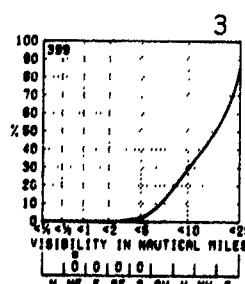
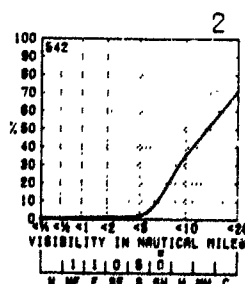
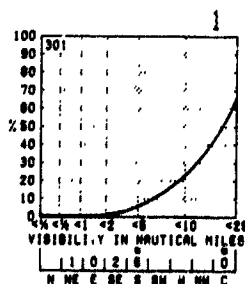
22



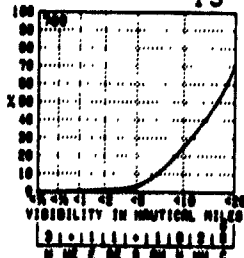
31



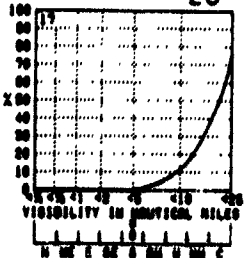
ent the objective compilation of available data for specified areas without regard to suspected biases.
analyses (opposite page) are based on all available data subjectively adjusted where bias was evident.



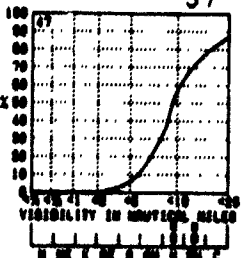
19



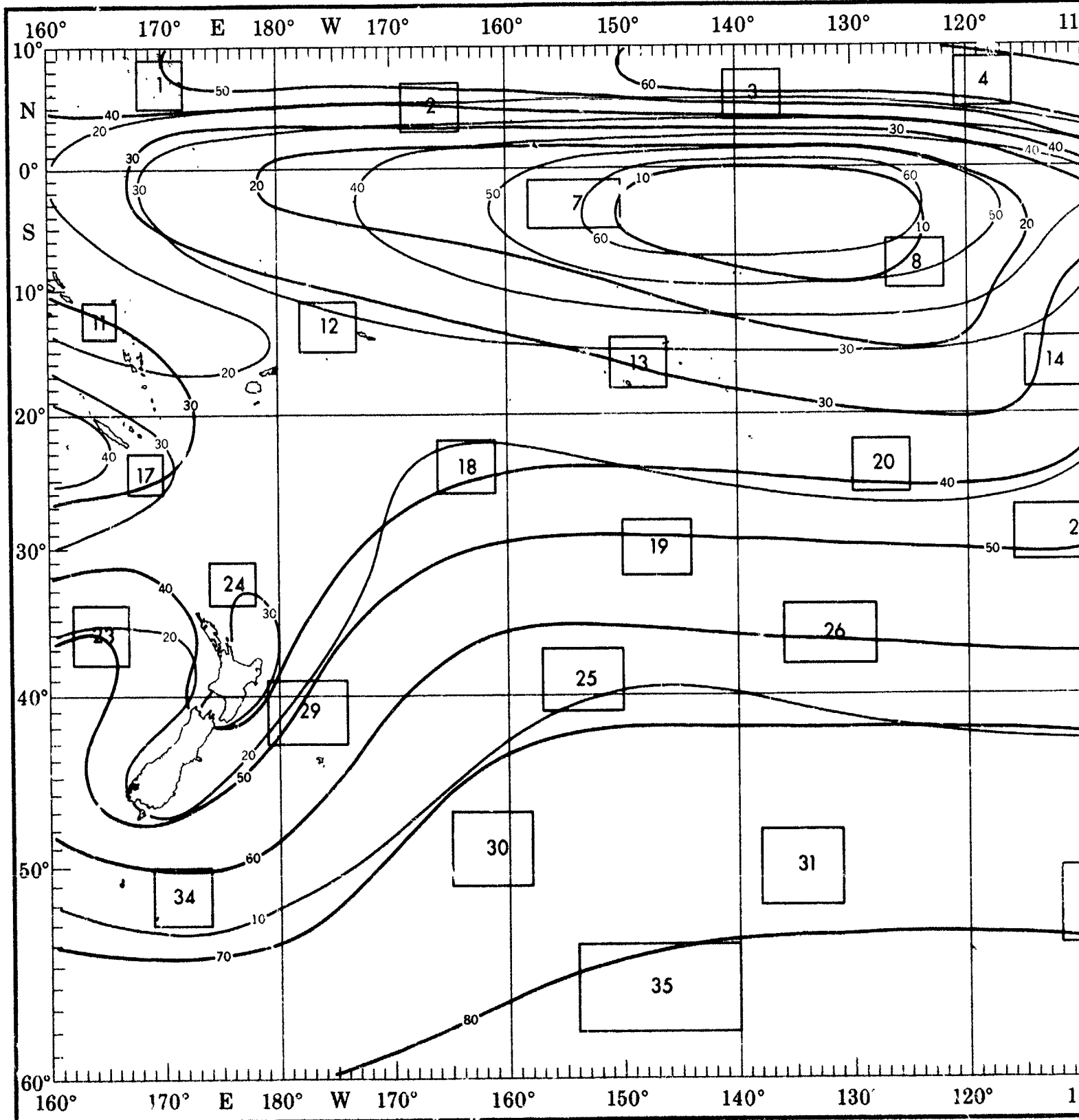
28



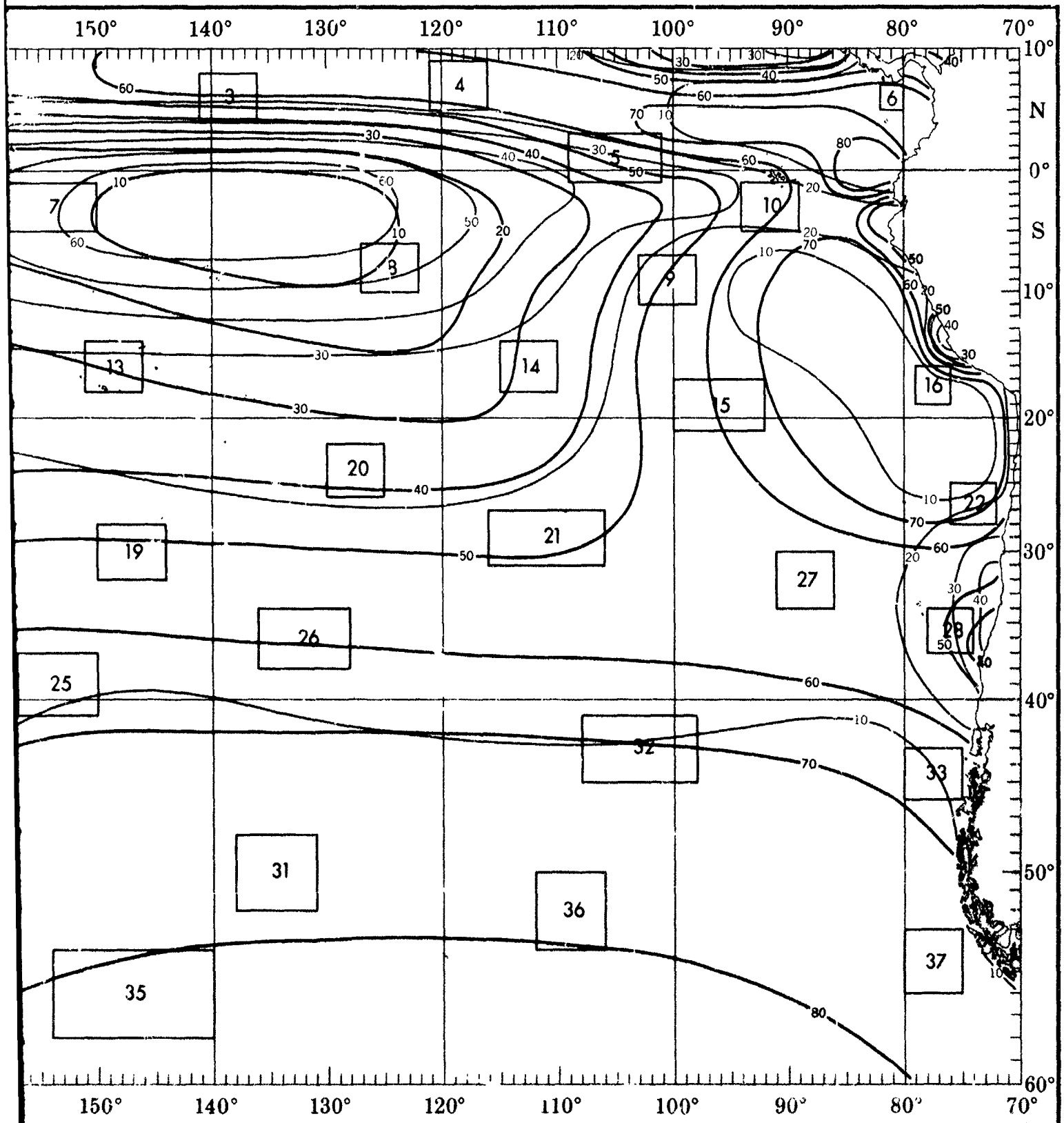
37



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CLOUD COVER

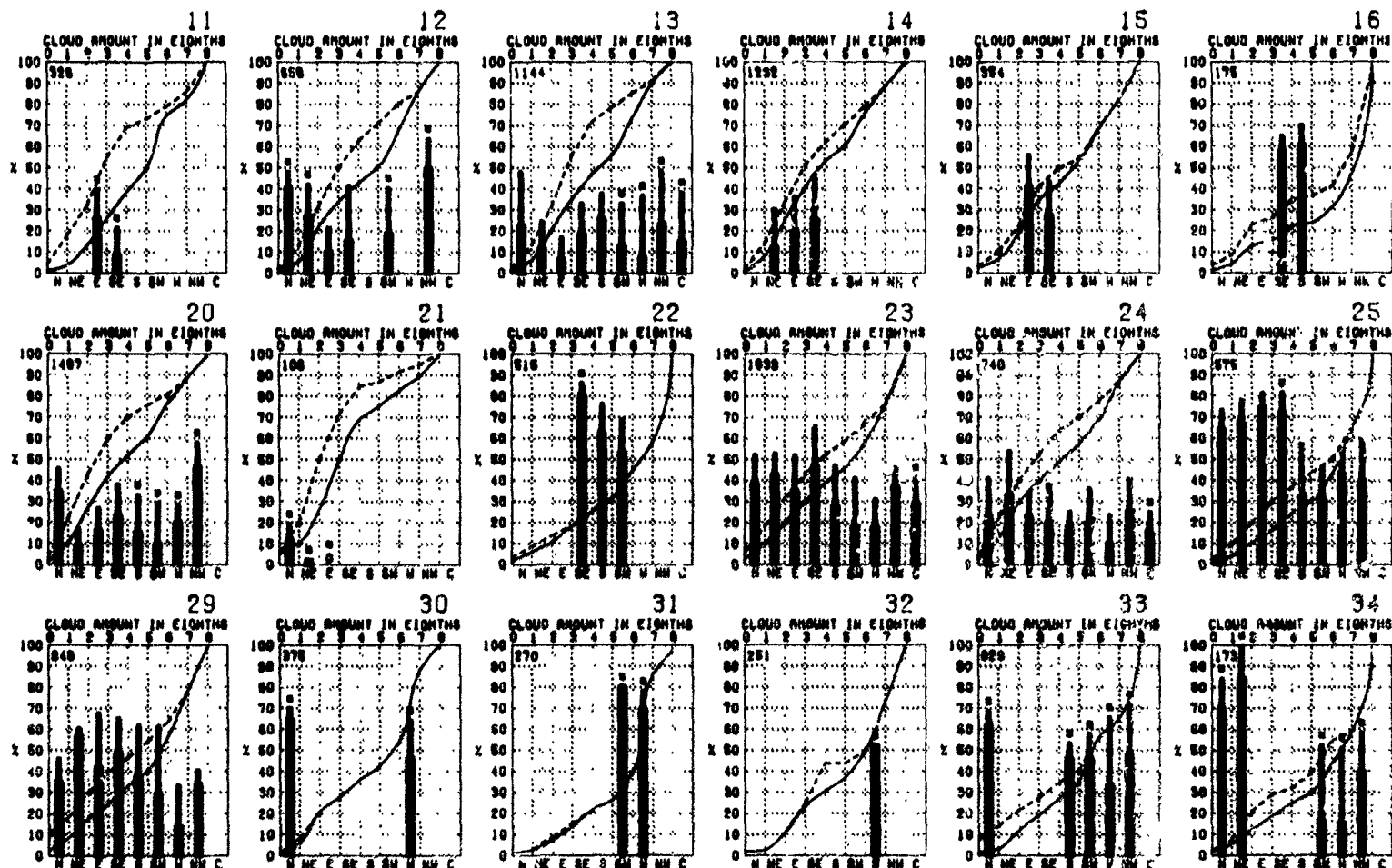
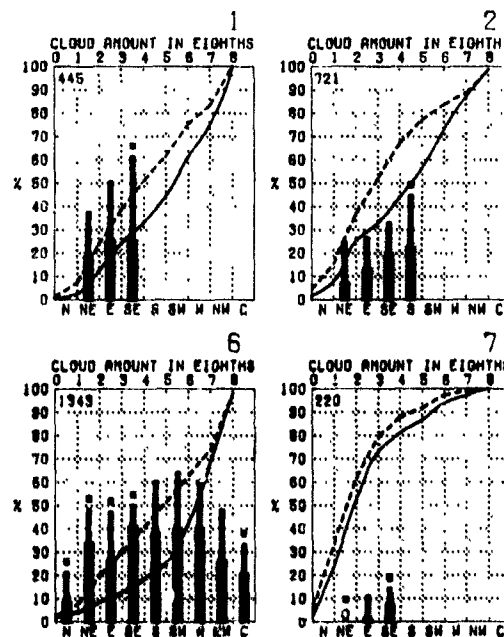
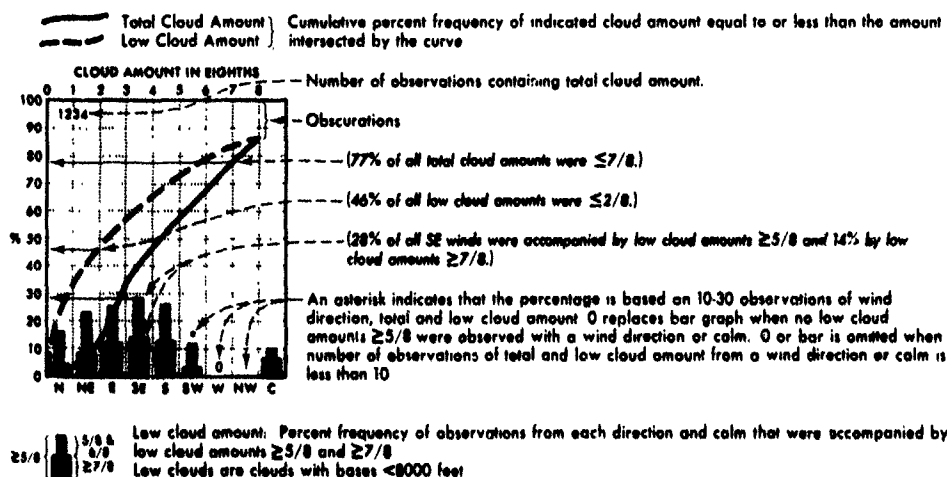


1

1

2

CLOUD COVER



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted with

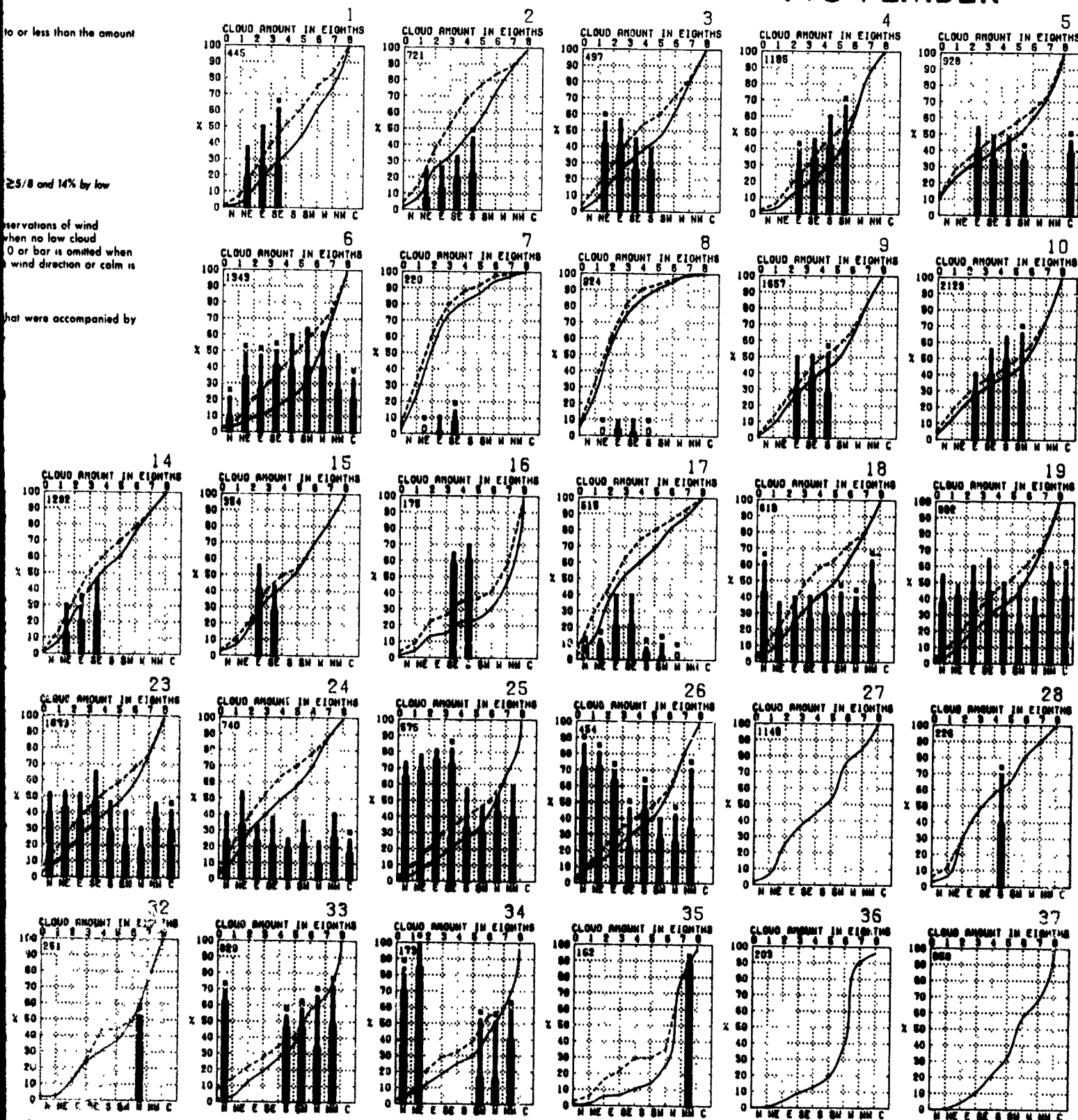
NOVEMBER

to or less than the amount

≥5/8 and 14% by low

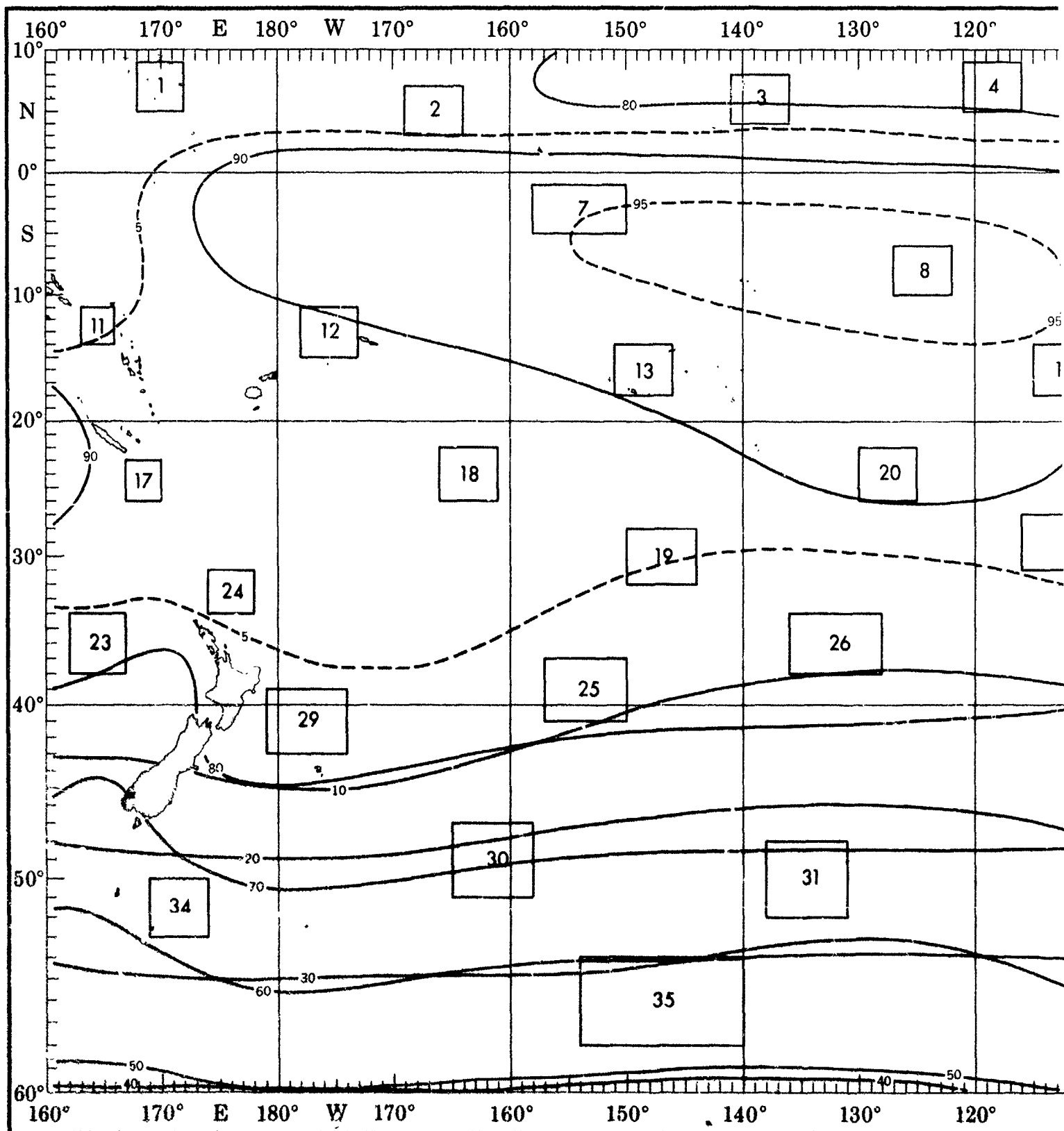
observations of wind
when no low cloud
0 or bar is omitted when
a wind direction or calm is

that were accompanied by

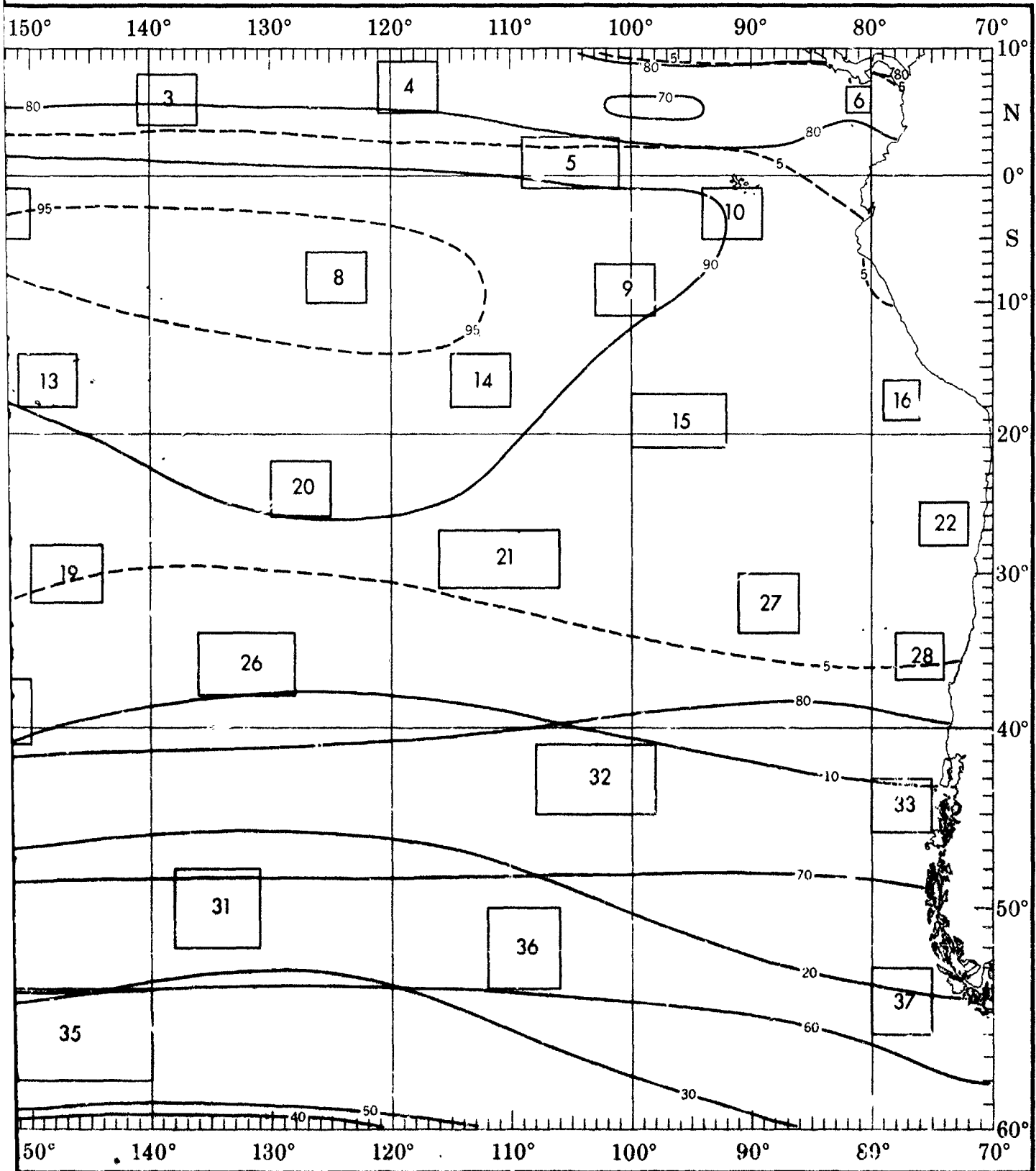


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

NOVEMBER



CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles).

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (it_{LC}) is $\geq 5/8$

Obscurations are included under ceiling "0 <1.5"

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$.

-- (2% of all observations reported ceiling ≥ 1000 but < 2000 feet simultaneously with visibility ≥ 5 but < 10 nautical miles.)

→ indicates $< 5\%$ but > 0

- Number of observations

		VISIBILITY							
		<1	1	<2	2-3	3-4	4-10	≥10	
LOW CLOUD CEILING	NC	0	0	+	3	13	64		
	30-99	0	0	0	0	0	+	1	
	30-99	0	+	0	0	0	+	4	
	90-99	0	+	1	1	2	2		
	90-99	0	+	1	1	2	1		
	0-99	0	1	0	0	+	2	0	
	3-60	+	0	0	+	+	0		
	1-4-13	+	0	0	0	0	0	0	
0-91-3	+	0	0	0	0	0	0		

		VISIBILITY							1
		<1/8	1/8<1	1/4	2/8	3/8	1/2	10	
LOW CLOUD CELLING	NC	0	0	0	0	1	6	47	
	50+80	0	0	0	0	0	0	0	
	35+80	0	0	0	0	0	0	0	
	20+35	0	0	0	0	0	5	8	
	10+20	0	0	0	1	5	9		
	5+10	0	0	1	2	3	12		
	3+5	0	0	0	0	0	2		
	1+3	0	0	0	0	1	0		
0+1	0	0	0	0	0	0	0		

		VISIBILITY			
		1/8	1/4	1/2	2/5
LOW CLOUD CEILING	NC	0	0	0	1
	80-99	0	0	0	0
	35-80	0	0	0	0
	20-35	0	0	0	+
	10-20	0	0	0	+
	5-10	0	0	+	0
	3-5	0	0	0	0
	1.5-3	+	0	0	0
0-1.5	0	0	1	0	

		VISIBILITY					
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	>3/4	10 or more
LOW CLOUD CEILING	NC	0	0	0	1	4	30
	80-89	0	0	0	0	+	1
	30-80	0	0	0	0	1	2
	20-30	0	+	0	+	3	0
	10-20	+	+	+	1	4	10
	0-10	0	0	+	1	4	11
	3-6	0	0	+	1	1	2
	1-3	0	+	0	+	0	0
0-1	0	0	0	0	0	+	

LOW CLOUD (%)	VISIBILITY			
	1/4	1/2	3/4	1.0
NC	0	0	0	0
50-90	0	0	0	0
35-50	0	0	0	0
20-35	0	0	0	0
10-20	0	0	0	0
0-10	0	0	0	0
3-6	0	0	0	0
1.5-3	0	0	0	0
0-1.5	0	0	0	0

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling <600 feet and/or visibility <2 nautical miles

		VISIBILITY							11
		<1/4	1/4-1/2	1/2-1	1-4	4-10	>10		
LOW CLOUD CELL%	MC	0	0	0	1	12	84		
	00-20	0	0	0	0	0	0		
	20-40	0	0	0	0	0	0		
	40-60	0	0	0	8	3	4		
	60-80	0	0	0	0	3	4		
	80-100	0	0	0	0	1	8		
	0-0	0	0	1	0	0	3		
	1-0-0	0	0	1	0	1	0		

[illegible]

		VISIBILITY						13
		<1/8	1/8-1/4	1/4-3/8	3/8-1/2	1/2-3/4	3/4-1	10
LOW CLOUD CELLING	NC	0	0	0	1	11	80	
	50-99	0	0	0	0	0	0	
	80-99	0	0	0	0	0	1	
	90-99	0	0	0	0	2	2	
	100-99	0	0	0	1	4	7	
	0-10	0	0	1	1	2	4	
	2-9	0	0	0	0	1	0	
	10-99	0	0	0	0	0	0	

LOW CLOUD CELL (%)	VISIBILITY						
	<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10-10	
NC	0	0	0	0	1	82	
00-00	0	0	0	0	0	1	
00-50			0	0	•	•	2
00-30	0	0	0	•	1	8	
10-20	0	0	0	•	2	16	
0-10	0	0	0	0	1	5	
3-6	0	0	0	0	•	1	
1-6-5	0	0	0	0	0	0	
0-1-6	0	0	0	0	0	•	

		VISIBILITY							15
		1/4	1/2	3/4	1	2	3	4	
LOW CLOUD CEILING	MC	0	0	0	0	2	4	0	
	50-60	0	0	0	0	0	0	0	
	90-100	0	0	0	0	0	0	2	
	20-30	0	0	0	0	1	7		
	10-20	0	0	0	1	2	22		
	0-10	0	0	0	1	1	11		
	3-6	0	0	0	0	0	0	1	
	1-0.3	0	0	0	7	0	0		
0-1.5	0	0	0	0	0	0	0		

		VISIBILITY				
		<1/2	1/2-1	1-2	2-5	≥5
LOW CLOUD CEILING	NC	0	0	0	1	
	60-90	0	0	0	0	
	95-99	0	0	0	0	
	70-98	0	0	0	1	
	10-90	0	0	0	0	
	0-10	0	0	0	0	
	3-8	0	0	0	0	
	1.0-4.5	0	0	0	0	
0-1.0	0	0	0	0		

		VISIBILITY						20
		<1/8	1/8	1/4	3/8	1/2	>1/2	
LOW CLOUD CEILING	NC	0	0	0	•	2	60	
	00-05	0	0	0	0	•		
	05-10	0	0	0	0	•	2	
	10-20	0	0	0	0	•	5	
	20-30	0	0	0	0	3	10	
	30-40	0	0	0	1	1	5	
	40-50	0	0	0	•	•		
	50-60	0	0	0	•	•	•	
60-75	0	0	0	0	•	•		

		VISIBILITY						21
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CEILING	NC	0	0	0	0	0	0	02
	00-00	0	0	0	0	0	0	0
	01-00	0	0	0	0	0	0	2
	00-05	0	0	0	0	0	0	3
	01-05	0	0	0	0	0	0	7
	01-10	0	0	0	0	0	0	3
	01-05	0	0	0	0	0	0	0
	01-10	0	0	0	0	0	0	0

22

		VISIBILITY						
		<1/2	1/2-1	1-2	2-5	5-10	>10	
ALL		0	0	0	0	3	92	
50-60		0	0	0	0	0	1	
20-50		0	0	0	1	1	0	
10-20		0	0	0	1	3	10	
0-10		0	0	0	1	1	25	
0-10		0	0	0	0	5	11	
0-5		0	0	0	0	1	1	
1.0-5.0		0	0	0	0	0	0	
0-1.0		0	0	0	0	0	0	

LOW CLOUD CEILING

		VISIBILITY					
		<1/4	1/4	1/2	3/4	5/8	≥10
MC		0	0	0	1	4	49
50<50		0	0	0	0	0	1
50<60		0	0	0	0	1	3
60<65		0	0	0	0	2	5
65<70		0	0	0	0	4	14
70<75		0	0	0	1	5	9
75<80		0	0	0	1	1	1
80<85		0	0	0	0	0	0
85<90		0	0	0	0	0	0

		VISIBILITY							24
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1		
LOW CLOUD CEILING	NC	0	0	0	+	1	63		
	50-99	0	0	0	0	0	1		
	30-49	0	0	0	0	1	2		
	50-99	0	0	0	0	1	7		
	10-29	0	0	0	+	2	12		
	5-9	0	0	0	0	4	6		
	3-4	0	0	0	0	1	1		
	1.5-3	0	0	0	0	0	+		
0-1.5	0	0	0	0	+	+			

		VISIBILITY			
		1/4	1/2	1-2	2 or more
LOW CLOUD CEILING	NC	0	0	0	0
	50-99	0	0	0	0
	95-99	0	0	0	0
	90-95	0	0	0	1
	10-29	1	0	+	+
	0-10	1	0	1	3
	3-9	0	0	0	0
	1-5-9	0	0	0	1
0-1-5	+	1	0	+	

29

		VISIBILITY						
		<1/4	1/4-1/2	1/2-1	1-2	>2	≥10	
LOW CLOUD CELLING	NC	0	0	0	7	0	4	44
	00-20	0	0	0	0	1	3	
	20-40	0	0	0	1	1	3	
	40-60	0	0	0	1	4	0	
	60-79	0	0	0	1	4	15	
	80-100	0	0	0	1	2	6	
	90-99	0	0	0	0	1	0	
	100-100	0	0	0	0	0	0	
		0	0	0	0	0	0	

		VISIBILITY						30
		<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	10-16	
LOW CLOUD CEILING	MC	0	0	0	0	0	26	
	00-00	0	0	0	0	0	3	
	05-00	0	0	0	0	0	17	
	00-05	0	0	0	0	0	11	
	10-00	0	0	0	0	0	0	
	0-10	0	0	0	0	0	0	
	1-10	0	0	0	0	0	0	
	0-1.0	0	0	0	0	0	0	

		31 VISIBILITY							
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10	
LOW CLOUD CEILING	NC	0	0	0	3	0	15		
	60-99	0	0	0	0	0	0		
	56-59	0	0	0	0	0	3	0	
	50-55	0	0	0	0	0	6	12	
	1-59	0	0	3	6	9	15		
	0-10	0	0	3	0	6	12		
	0-5	0	0	0	0	3	0		
	1-5-5	0	0	3	0	0	0		
0-1-5	0	0	0	3	0	0			

		VISIBILITY						32
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	>1	
LOW CLOUD CELL%	AC	0	0	0	0	0	0	47
	50-99	0	0	0	0	0	0	0
	25-50	0	0	0	0	0	0	0
	20-25	0	0	0	0	7	0	0
	10-20	0	0	0	0	0	0	20
	5-10	0	0	0	0	7	20	
	2-5	0	0	0	0	0	0	
	1.0-2	0	0	0	0	0	0	
0-1.0	0	0	0	0	0	0		

	VISIBILITY					
	<1/4	1/4-1/2	1/2-3/4	3/4-1	1-10	>10
NC	0	0	0	0	4	30
60-80	0	0	0	0	0	0
30-50	0	0	0	0	0	1
20-30	0	0	0	3	2	13
10-20	0	0	0	1	5	22
5-10	0	0	1	1	0	0
3-5	0	0	0	0	0	0
1.5-3	0	0	0	0	0	0
0-1.5	0	1	0	0	0	0

	VISIBILITY			
	<1/2	1/2-1	1-3	3-5
NC	0	0	1	1
50-80	0	0	0	0
25-50	0	0	0	0
20-35	0	0	1	1
10-20	1	0	0	1
5-10	0	0	0	1
3-5	0	0	0	0
1.5-3	0	0	0	2
0-1.5	0	4	3	0

Graphs represent the objective compilation of available data for specified areas without re-
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

TY

NOVEMBER

ceilings (hundreds of feet)

s (h) when low cloud amount

urrences of $N_h < 5/8$.

usely with visibility ≥ 5 but < 10

visibility ≥ 5 nautical miles

ies

3

10

+

1

2

7

4

+

0

0

98

2

10

22

1

8

18

25

11

1

9

0

0

33

0

2

5

0

0

0

33

1

0

0

0

0

1

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	1	6	47				
80-89	0	0	0	0	0	0	0				
30-39	0	0	0	0	0	0	0				
20-29	0	0	0	0	0	5	6				
10-19	0	0	0	0	1	5	9				
0-9	0	0	0	1	2	3	12				
3-4	0	0	0	0	0	0	2				
1-5-3	0	0	0	0	0	1	0				
0-1-5	0	0	0	0	0	0	0				

163

2

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	1	4	62				
80-89	0	0	0	0	0	0	0				
30-39	0	0	0	0	0	0	0				
20-29	0	0	0	0	0	1	6				
10-19	0	0	0	0	0	3	9				
0-9	0	0	0	0	0	2	6				
3-4	0	0	0	0	0	0	2				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	1	0	0	0				

285

3

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	5	50				
80-89	0	0	0	0	0	1	0				
30-39	0	0	0	0	0	1	2				
20-29	0	0	0	0	1	2	5				
10-19	0	0	0	0	0	4	12				
0-9	0	0	0	0	1	5	9				
3-4	0	0	0	0	0	1	2				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

282

4

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	1	2	39				
80-89	0	0	0	0	0	0	0				
30-39	0	0	0	0	0	0	1				
20-29	0	0	0	0	0	1	2				
10-19	0	0	0	0	1	5	14				
0-9	0	0	0	0	0	3	6				
3-4	0	0	0	0	0	4	4				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	1	0	0	0				

221

5

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	2	49				
80-89	0	0	0	0	0	0	1				
30-39	0	0	0	0	0	0	2				
20-29	0	0	0	0	0	1	8				
10-19	0	0	0	0	0	2	19				
0-9	0	0	0	0	0	2	9				
3-4	0	0	0	0	0	0	1				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

845

6

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	1	4	38				
80-89	0	0	0	0	0	0	1				
30-39	0	0	0	0	0	1	2				
20-29	0	0	0	0	0	3	8				
10-19	0	0	0	0	1	4	16				
0-9	0	0	0	0	1	4	11				
3-4	0	0	0	0	1	1	2				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

731

7

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	3	84				
80-89	0	0	0	0	0	0	0				
30-39	0	0	0	0	0	0	0				
20-29	0	0	0	0	0	0	7				
10-19	0	0	0	0	0	0	3				
0-9	0	0	0	0	0	0	3				
3-4	0	0	0	0	0	0	0				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

118

8

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	0	80				
80-89	0	0	0	0	0	0	0				
30-39	0	0	0	0	0	0	1				
20-29	0	0	0	0	0	0	2				
10-19	0	0	0	0	0	0	4				
0-9	0	0	0	0	0	0	1				
3-4	0	0	0	0	0	0	0				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

864

9

		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	1	49				
80-89	0	0	0	0	0	0	2				
30-39	0	0	0	0	0	0	6				
20-29	0	0	0	0	0	1	12				
10-19	0	0	0	0	0	1	21				
0-9	0	0	0	0	0	1	7				
3-4	0	0	0	0	0	0	0				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

870

10

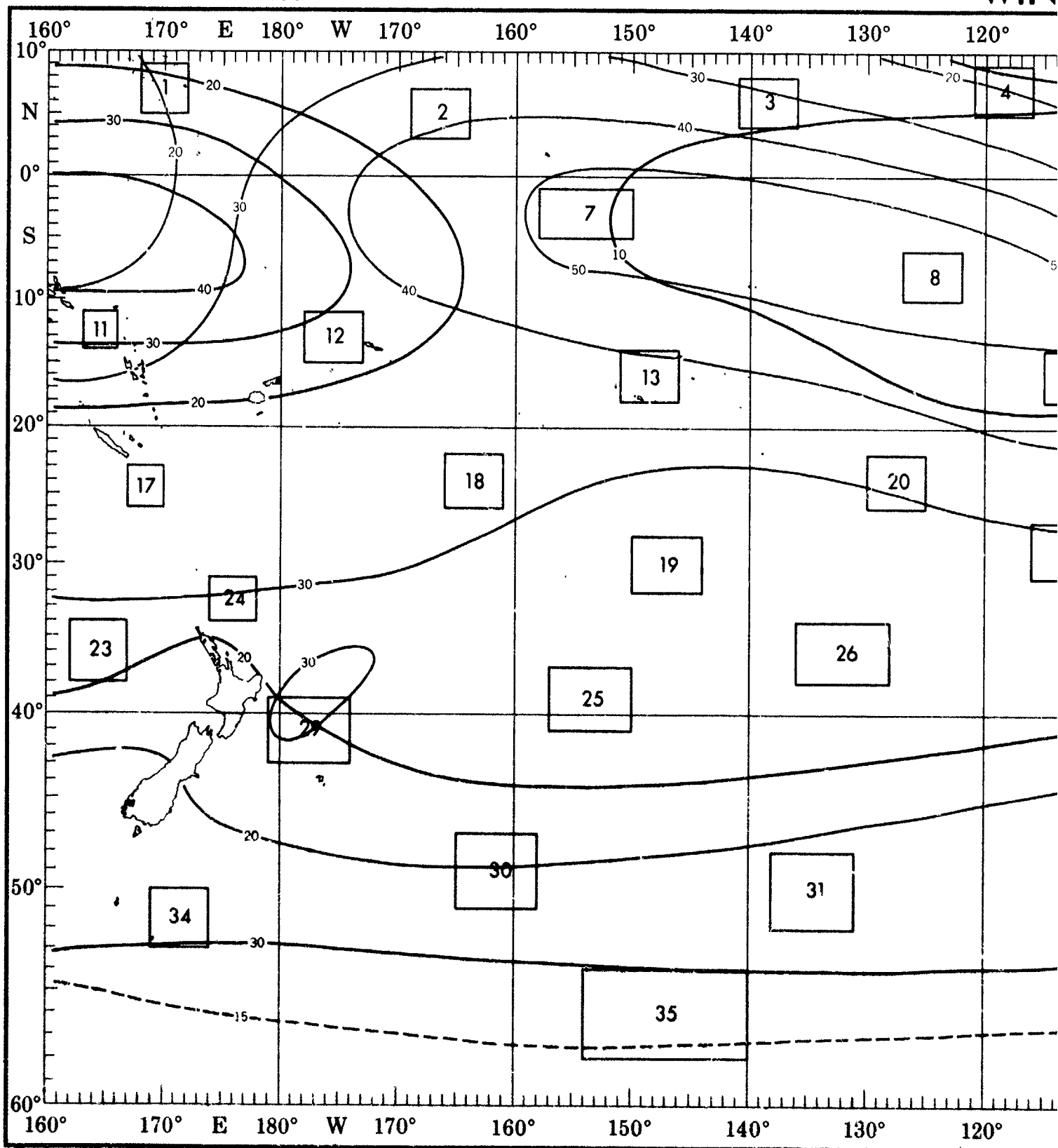
		VISIBILITY									
		$< 1/8$	$1/8-1/4$	$1/4-1/2$	$1/2-3/4$	$3/4-1$	$1-2$	$2-5$	$5-10$	> 10	
NC	0	0	0	0	0	2	40				
80-89	0	0	0	0	0	0	1				
30-39	0	0	0	0	0	1	5				
20-29	0	0	0	0	0	1	11				
10-19	0	0	0	0	0	4	21				
0-9	0	0	0	0	0	1	11				
3-4	0	0	0	0	0	1	1				
1-5-3	0	0	0	0	0	0	0				
0-1-5	0	0	0	0	0	0	0				

1148

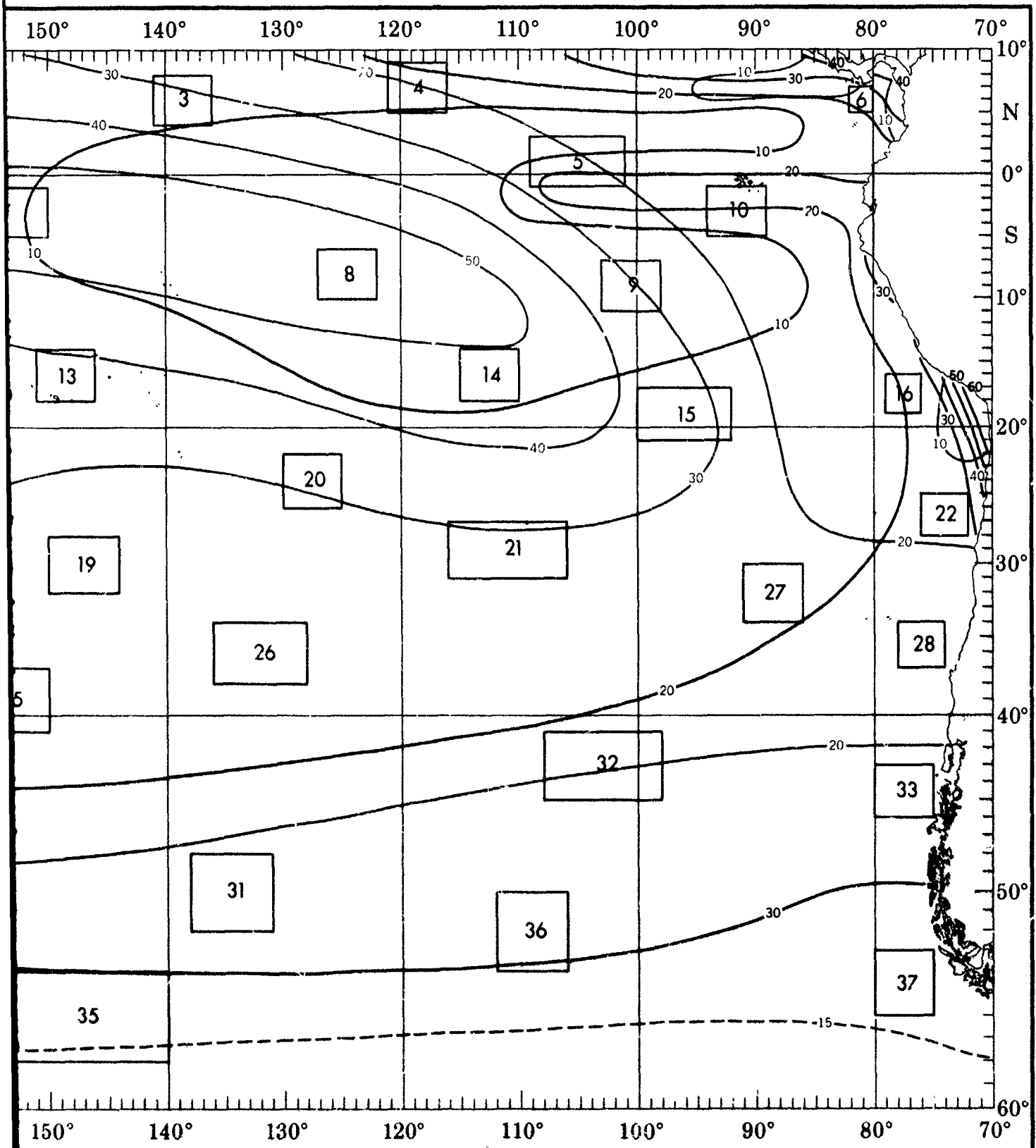
		VISIBILITY									
		<1/8	1/8-1/4	1/4-1/2	1/2-3/4	3/4-1	1-2	2-5	5-10	>10	
NC	0	0	0	0	0	0	2	48			
50-59	0	0	0	0	0	0	0				
30-49	0	0	0	0	0	0	0	2			
20-29	0	0	0	0	0	0	1	7			
10-19	0	0	0	0	0	1	2	22			
0-9	0	0	0	0	0	1	1	11			
3-6	0	0	0	0	0	0	0	1			
1-5	0	0	0	0	0	0	0	0			
0-1.5	0	0	0	0	0	0	0	0			

NOVEMBER

WIN



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsby) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_L) is $\geq 5/8$.

- (2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_b < 5/8$.

~+ indicates $\leq 5\%$ but ≥ 0 .

--Number of observations.

WIND SPEED (knots)

ICC - Value	0-5	6-10	11-20	21-30	30-40
<10.0 or <5	+			+	0
<6.0 or <5	2	2		1	+
Value <5		2			+
<10.0 or <5	3	4	2		
<6.0 or <5	6	6	6		2
Value <5	9	11	12	3	
<20.0 or <5	12	13	15	7	3
ICC < 20	4	2	1		

1234

WIND SPEED (KNOTS)					
LDC - VSBY	0-3	4-10	11-22	23-33	34+
<1.5 & OR <1.5	0	0	0	0	0
<6 & OR <2	0	0	3	0	0
VSBY <2	0	0	1	0	0
<10 & OR <2	0	8	12	0	0
<20 & OR <6	2	12	22	1	0
VSBY >6	8	42	42	1	0
>30 & >8	7	30	15	1	0
HC > 10	7	25	14	1	0

WIND SPEED			
LCC - VSBY	0-9	4-10	11
<1.6 OR <.6	0	1	
<6 OR <2	+	2	
VSBY <3	0	1	
<10 OR <3	+	5	
<20 OR <5	1	12	1
VSBY ≥6	6	47	4
≥20 OR ≥6	5	34	2
NC ≥10	4	31	2

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions. LCC ≥ 5000 ft, (or no LCC), V_{sky} ≥ 5 nm, and Wind 11-21 kts

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC <300 ft., Vsbv <1 nm, Wind <6 or ≥34 kts.

Satisfactory conditions-between peer and optimum

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10-19	20-29	30-39	40-49
<1.5 4.0M<1.5	+	+	+	0	0
<6 4.0M<2	+	3	3	0	0
VSBY <2	+	1	+	0	0
<10 4.0M<2	1	12	8	+	0
<20 4.0M<6	3	23	17	1	0
VSBY >6	8	56	31	1	0
>50 4.0M	6	27	10	+	0
MC 10 10	4	25	8	0	0

		WIND SPEED			
LCC - VSBY		0-4	4-10	10-16	16-20
<1.5 & ON <1.5		0	0		
<1.5 & ON <2		0	0		
VSBY <2		0	0		
<10 & ON <2		0	1		
<20 & ON <5		0	2		
VSBY ≥5		0	40	5	
≥20 & ≥5		0	41	4	
NC ≥10		0	41	4	

WIND SPEED (KNOTS)					
LCC - VDRY	0-9	10-19	20-29	30-39	40+
<10 & ON <10	0	0	3	0	0
<10 & ON <10	0	0	7	0	0
VDRY <10	0	0	3	0	0
<10 & ON <10	0	4	10	0	0
<10 & ON <10	0	9	15	0	0
VDRY 10	4	55	36	0	0
>10 & 10	4	42	19	0	0
10 & 10	4	33	18	0	0

WIND SPEED (KNOTS)					
LCC - V00Y	0-9	10-19	20-29	30-39	40+
<10 & 00-09	0	0	0	0	0
<10 & 10-19	0	+	2	+	0
V00Y <10	0	+	0	+	0
<10 & 20-29	+	3	8	1	0
<10 & 30-39	3	10	18	1	1
V00Y >10	10	42	40	1	+
>10 & 40	0	32	26	+	0
40 & >40	0	31	23	+	0

13

WIND SPEED (KNOTS)

LCC - VSBY	0-9	10-19	20-29	30-39	40-49
<1.0 & OR <1.5	0	0	0	0	0
>1.5 & OR <2	0	1	2	0	0
VSBY <2	0	1	1	0	0
<10 & OR <2	1	4	5	1	0
>10 & OR <5	1	10	11	1	0
VSBY <5	5	43	45	2	0
>5 & OR <10	4	34	32	1	0
MC >10	4	30	28	1	0

WIND SPEED (KNOTS)					
LCC - VSBY	0-9	10-19	20-29	30-39	40+
<1.0 & ON <1.0	0	0	0	0	0
<0.5 & ON <0.5	0	0	0	0	0
VSBY <1.0	0	0	0	0	0
<1.0 & ON <1.0	0	2	5	0	0
<0.5 & ON <0.5	0	7	17	1	0
VSBY <0.5	2	31	64	3	0
<0.5 & ON <0.5	2	21	40	2	0
ON <0.5	2	20	30	2	0

15

WIND SPEED (KNOTS)

LCC - V007	0-3	4-10	11-20	21-33	34+
<1.0 & ON <1.0	0	0	0	0	0
>0.4 ON <2	0	0	1	0	0
V007 <2	0	0	0	0	0
<10 & ON <2	0	4	11	1	0
>20 & ON <2	0	10	20	3	0
V007 >2	4	27	50	7	0
>20 & >2	4	13	28	4	0
MC > >10	4	13	28	4	0

WIND SPEED			
LCC - VVVV	0-5	6-10	11-15
<1.5 & OR <.5	0	0	0
<5 & OR <2	0	0	0
VVVV <2	0	0	0
<10 & OR <2	0	0	0
<20 & OR <5	1	20	1
VVVV <5	3	41	5
>20 & >5	1	12	2
NC & >10	0	12	2

20

WIND SPEED (KNOTS)

LTC - WSW	0-9	10-19	20-29	30-39
<10 & 00 <5	0	0	0	0
<10 & 00 <5	0	0	1	0
WSW <5	0	0	0	0
<10 & 00 <5	0	2	5	1
<10 & 00 <5	0	8	12	3
WSW <5	5	41	47	5
<10 & 00 <5	5	31	32	3
WSW <5	5	30	32	3

WIND SPEED (KNOTS)					
LCC - VGGT	0-9	10-19	20-29	30-39	40+
<10 & ON <5	0	0	0	0	0
>10 & ON <5	0	0	0	0	0
VGGT <5	0	0	0	0	0
<10 & ON <5	0	0	0	0	0
>10 & ON <5	0	7	3	0	0
VGGT >5	0	68	31	2	0
<10 & ON >5	0	68	27	2	0
MC > 10	0	68	27	2	0

22

WIND SPEED (KNOTS)

LCC - VSBT	0-9	10-19	20-29	30-39	40+
<10 & ON <10	0	0	0	0	0
<10 & ON <10	0	0	1	0	0
VSBT <10	0	0	0	0	0
<10 & ON <10	1	7	7	2	0
<10 & ON <10	2	17	22	4	0
VSBT <10	0	39	48	0	0
<10 & ON <10	1	13	11	2	0
MC <10	1	11	10	1	0

		WIND SPEED (KNOTS)			
LCC - V007		0-9	10-19	20-29	30-39
		0	1	2	3
<1.5 G OR <1.5		•	•	•	•
<0.5 G OR <0.5		•	1	2	1
V007 <0.5		•	0	•	•
<1.0 G OR <1.0		•	4	0	1
<0.5 G OR <0.5		1	0	10	7
V007 >0.5		6	32	45	11
>0.5 G OR >0.5		4	20	24	5
MC 4.0-10		3	19	22	4

24

WIND SPEED (KNOTS)

LCC - V00Y	0-9	10-11	11-22	22-33	33+
<1.5 4.00 <1.5	0	0	0	+	+
<6 4.00 <2	0	1	+	+	+
V00Y <2	0	0	0	0	0
<10 4.00 <5	0	4	5	2	1
<30 4.00 <8	1	8	13	9	1
V00Y >5	5	41	48	7	1
>30 4.00	4	30	20	9	+
HC 4.0 10	4	20	27	2	0

WIND SPEED			
LCC - VDOT	0-3	4-10	11-25
<1.0 & OR <1.5	0	+	
<0.5 & OR <0	0	0	
VDOT <0	0	0	
<1.0 & OR <2	1	4	
<0.0 & OR <0	1	11	1
VDOT >0	2	26	4
>0.0 & >0	1	10	2
NC < 0.10	1	0	1

		MIND SPEED (KNOTS)			
LCC - WGVV		0-5	6-10	11-21	22-34
<1.5 & 0.02 < 0.5		0	1	0	0
<0.4 0.02 < 0.5		0	1	1	1
WGVV < 0.5		0	1	0	0
<1.0 & 0.02 < 0.5		0	2	5	4
<0.5 & 0.02 < 0.5		1	6	14	10
WGVV 0.5		2	23	40	20
0.50 & 0.02		1	15	20	0
0.5 & 0.10		1	19	22	7

					30
					WIND SPEED (KNOTS)
LCC - V00T	0-3	4-10	11-20	21-30	31+
<1.5 & 00-4.5	0	0	0	0	0
<0 & 00-4.5	0	0	3	0	0
V00T <3	0	0	0	0	0
<10 & 00-4.5	0	0	6	3	0
<30 & 00-4.5	0	0	23	0	3
V00T 10	0	17	40	20	0
>30 & 00-4.5	0	0	14	6	0
MC 0-10	0	0	14	6	0

31				
WIND SPEED (KNOTS)				
LCC - V08T	0-3	4-10	11-22	23-34
<1.0 0.00 <0.5	0	0	3	0
<0.4 0.00 <0.2	0	0	3	0
V08T <2	0	0	0	3
<10 4.00 <5	0	3	10	9
<20 4.00 <5	0	13	20	19
V08T >0	0	22	30	22
>0.4 4.00	0	0	0	0
MC 4 4.10	0	0	0	0

		WIND SPEED (KNOTS)			
LCC - VOST		0-5	6-10	11-20	21-24
<1.5 & 0R <5		0	0	0	0
<0.5 & 0R <5		0	0	0	0
VOST <5		0	0	0	0
<10 & 0R <5		0	0	13	0
<20 & 0R <5		0	7	20	0
VOST >5		0	7	33	0
>20 & >5		0	7	13	27
0R >5 & 10		0	7	13	27

33	
WIND SPEED (KNOTS)	
LCC - VDRY	0-2 2-10 10-21 21-30 30-34
<10.0 KM <5	0 0 0 0 1
<6.0 KM <2	0 0 0 0 2
VDRY <2	0 0 0 0 2
<10.0 KM <2	0 5 0 9 2
<20.0 KM <2	2 14 25 4 4
VDRY <5	3 30 41 11 1
>20.0 KM	1 15 13 4 0
WC < 10	1 11 10 4 0

WIND SPEED			
LCC - VMS	0-3	4-10	11-15
<1.5 & 00 <1.5	0	2	1
<0.5 & 00 <2	0	4	1
VMS <2	0	2	1
<10 & 00 <2	0	5	1
<00 & 00 <5	2	8	1
VMS >5	3	10	3
>50 & 4 >5	2	3	1
MC & 0 10	1	3	1

Graphs represent the objective compilation of available data for specified areas without r. The isopleth analyses (opposite page) are based on all available data subjectively adjusted

VISIBILITY-WIND

NOVEMBER

visibility (Vsby) in nautical
miles (h) when low cloud amount
and ceiling <1000 feet and/or
occurrences of N_h <5/8.

Wind 11-21 kts.
Conditions: LCC <300 h.

3

2

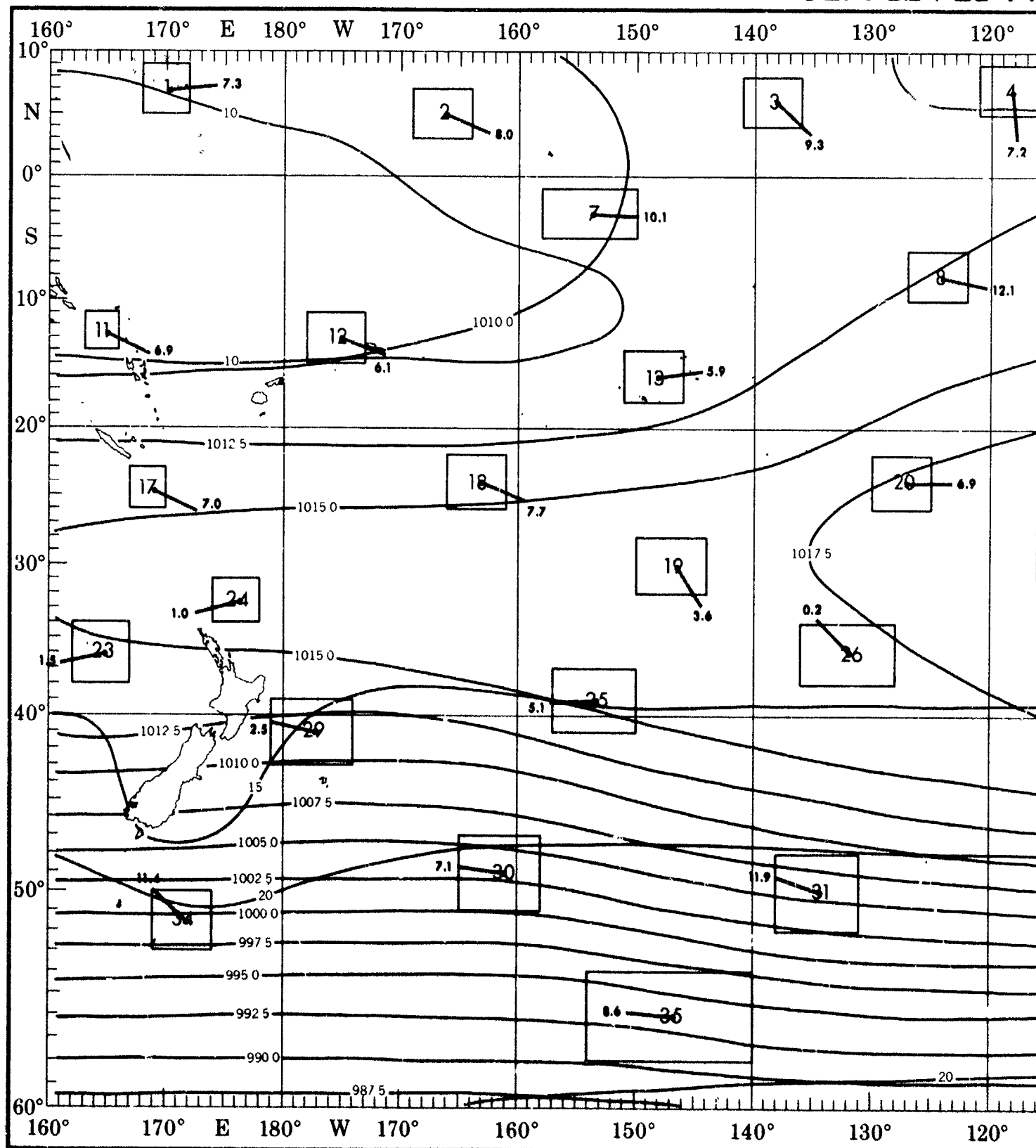
3

The objective compilation of available data for specified areas without regard to suspected biases.
Data (opposite page) are based on all available data subjectively adjusted where bias was evident.

1													2													3													4													5												
WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)												
LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40																																			
<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	1	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	1	1	0	0	<1.0 & OR <5	0	0	0	0	0																																			
<6 & OR <2	0	0	3	0	0	<6 & OR <2	0	2	1	0	0	<6 & OR <2	0	3	1	0	0	<6 & OR <2	0	3	1	0	0	<6 & OR <2	1	8	3	0	0																																			
VSBY <2	0	0	1	0	0	VSBY <2	0	1	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	1	0	0	0	VSBY <2	0	1	0	0	0																																			
<10 & OR <2	0	0	8	12	0	<10 & OR <2	0	5	6	1	0	<10 & OR <2	0	7	10	1	0	<10 & OR <2	0	7	10	1	0	<10 & OR <2	3	15	14	0	0																																			
<20 & OR <5	2	12	22	1	0	<20 & OR <5	1	12	13	1	0	<20 & OR <5	1	15	18	1	0	<20 & OR <5	5	26	23	0	0	<20 & OR <5	5	26	23	0	0																																			
VSBY >5	9	42	42	1	0	VSBY >5	6	47	41	3	0	VSBY >5	2	42	53	1	0	VSBY >5	6	41	42	1	0	VSBY >5	6	41	42	1	0																																			
>50 & >5	7	30	15	1	0	>50 & >5	5	34	26	2	0	>50 & >5	1	25	29	0	0	>50 & >5	1	19	21	0	0	>50 & >5	3	33	17	0	0																																			
NC & >10	7	25	14	1	0	NC & >10	4	31	24	2	0	NC & >10	0	23	26	0	0	NC & >10	1	19	20	0	0	NC & >10	3	31	16	0	0																																			
183					293					281					221					641																																												
6													7													8													9													10												
WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)												
LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40																																			
<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0																																			
<6 & OR <2	0	3	3	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0																																			
VSBY <2	0	1	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0																																			
<10 & OR <2	1	12	9	0	0	<10 & OR <2	0	1	2	0	0	<10 & OR <2	0	1	1	0	0	<10 & OR <2	0	3	5	0	0	<10 & OR <2	0	3	5	0	0																																			
<20 & OR <5	3	23	17	1	0	<20 & OR <5	0	2	4	0	0	<20 & OR <5	0	2	5	0	0	<20 & OR <5	0	9	20	1	0	<20 & OR <5	0	9	20	1	0																																			
VSBY >5	8	55	31	1	0	VSBY >5	0	46	50	4	0	VSBY >5	0	34	84	1	0	VSBY >5	1	37	80	1	0	VSBY >5	1	37	80	1	0																																			
>50 & >5	5	27	10	0	0	>50 & >5	0	41	42	4	0	>50 & >5	0	32	59	1	0	>50 & >5	1	22	28	0	0	>50 & >5	1	22	28	0	0																																			
NC & >10	4	25	8	0	0	NC & >10	0	41	40	4	0	NC & >10	0	32	57	1	0	NC & >10	1	21	27	0	0	NC & >10	1	21	27	0	0																																			
718					118					583					870					1148																																												
14													15													16													17													18												
WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)												
LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40																																			
<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0																																			
<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0																																			
VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0																																			
<10 & OR <2	0	4	11	1	0	<10 & OR <2	0	8	1	0	0	<10 & OR <2	0	1	7	0	0	<10 & OR <2	0	5	7	3	0	<10 & OR <2	0	5	7	3	0																																			
<20 & OR <5	0	10	28	3	0	<20 & OR <5	1	20	16	0	0	<20 & OR <5	0	3	13	1	0	<20 & OR <5	1	9	18	4	0	<20 & OR <5	1	9	18	4	0																																			
VSBY >5	4	27	59	7	0	VSBY >5	2	41	32	2	0	VSBY >5	6	38	49	5	0	VSBY >5	4	42	43	8	0	VSBY >5	4	42	43	8	0																																			
>50 & >5	4	13	28	4	0	>50 & >5	1	13	24	0	0	>50 & >5	6	33	31	3	0	>50 & >5	2	30	24	4	0	>50 & >5	2	30	24	4	0																																			
NC & >10	4	13	28	4	0	NC & >10	0	12	20	0	0	NC & >10	6	33	29	3	0	NC & >10	2	28	22	4	0	NC & >10	2	28	22	4	0																																			
141					121					224					363					608																																												
23													24													25													26													27												
WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)												
LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40																																			
<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0	<1.0 & OR <5	0	0	0	0	0																																			
<6 & OR <2	0	0	1	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0	<6 & OR <2	0	0	0	0	0																																			
VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0	VSBY <2	0	0	0	0	0																																			
<10 & OR <2	0	4	5	2	1	<10 & OR <2	1	4	6	3	0	<10 & OR <2	0	5	8	3	1	<10 & OR <2	0	13	0	0	0	<10 & OR <2	0	13	0	0	0																																			
<20 & OR <5	1	8	13	3	1	<20 & OR <5	1	11	17	7	1	<20 & OR <5	0	13	19	6	1	<20 & OR <5	4	38	0	0	0	<20 & OR <5	0	24	24	0	0																																			
VSBY >5	5	41	46	7	1	VSBY >5	2	28	46	18	3	VSBY >5	3	28	46	12	3	VSBY >5	4	83	13	0	0	VSBY >5	0	24	53	24	0																																			
>50 & >5	4	30	28	3	0	>50 & >5	1	10	21	8	1	>50 & >5	3	12	27	4	1	>50 & >5	0	21	0	0	0	>50 & >5	0	20	12	0	0																																			
NC & >10	4	29	27	2	0	NC & >10	1	8	16	8	0	NC & >10	1	10	21	4	0	NC & >10	0	17	0	0	0	NC & >10	0	17	0	0	0																																			
390					382					155					24					17																																												
32													33													34													35													36												
WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)													WIND SPEED (KNOTS)												
LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40	LCC - VSBY	0-3	4-10	11-20	21-30	31-40																																			
<1.0 & OR <5	0	0	0	0	1	<1.0 & OR <5	0	2	5	0	1	<1.0 & OR <5	0	3	8	3	0	<1.0 & OR <5	0	3	8	3	0	<1.0 & OR <5	0	0	0	0	0																																			
<6 & OR <2	0	0	0	0	2	<6 & OR <2	0	4	5	1	2	<6 & OR <2	0	8	15	9	0	<6 & OR <2	0	8	15	9	0	<6 & OR <2	0	8	15	9	0																																			
VSBY <2	0	0	0	0	2	VSBY <2	0	2	5	1	2	VSBY <2	0	3	12	3	0	VSBY <2	0	3	12	3	0	VSBY <2	0	0	0	0	0																																			
<10 & OR <2	0	5	8	3	2	<10 & OR <2	0	5	8	1	2	<10 & OR <2	0	6	18	12	0	<10 & OR <2	0	6	18	12	0	<10 & OR <2	0	0	17	0	11																																			
<20 & OR <5	2	14	25	4	4	<20 & OR <5	2	8	18	12	4	<20 & OR <5	0	6	29	21	0	<20 & OR <5	0	6	29	21	0	<20 & OR <5	0	0	20	36	11																																			
VSBY >5	3	36	41	11	1	VSBY >5	3	10	34	31	7	VSBY >5	0	3	44	18	0	VSBY >5	0	3	44	18	0	VSBY >5	0	0	38	58	11																																			
>50 & >5	1	15	13	4	0	>50 & >5	2	3	15	11	3	>50 & >5	0	3	24	3	0	>50 & >5	0	3	24	3	0	>50 & >5	0	0	8	8	0																																			
NC & >10	1	11	13	4	0	NC & >10	1	3	8	3	1	NC & >10	0	3	18	0	0	NC & >10	0	3	18	0	0	NC & >10	0	0	8	8	0																																			
82					119					34					10					10																																												

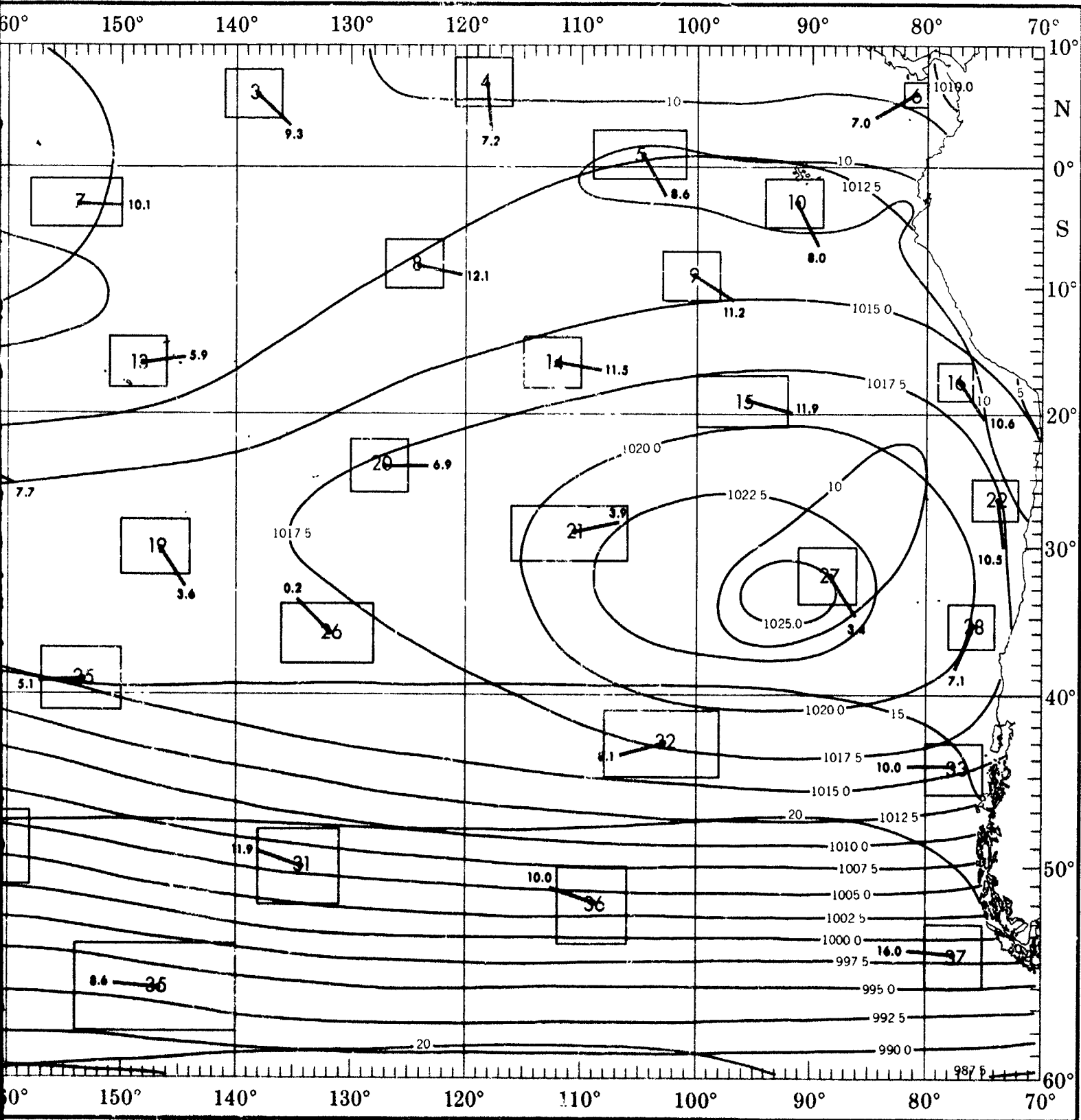
NOVEMBER

SEA LEVEL PRESSURE



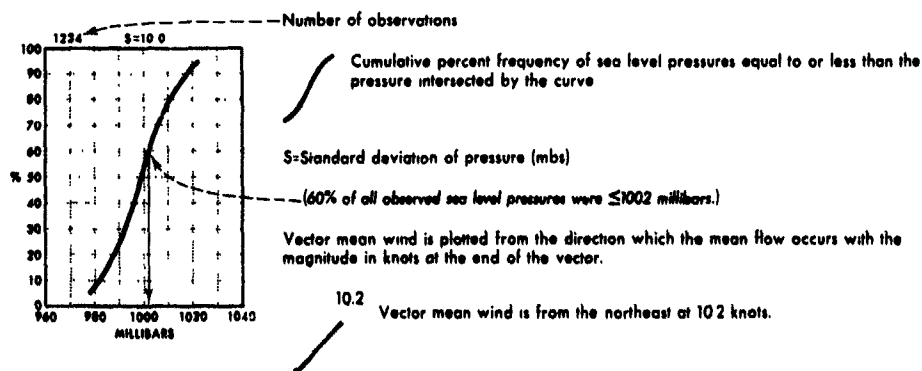
1

SEA LEVEL PRESSURE AND MEAN WIND



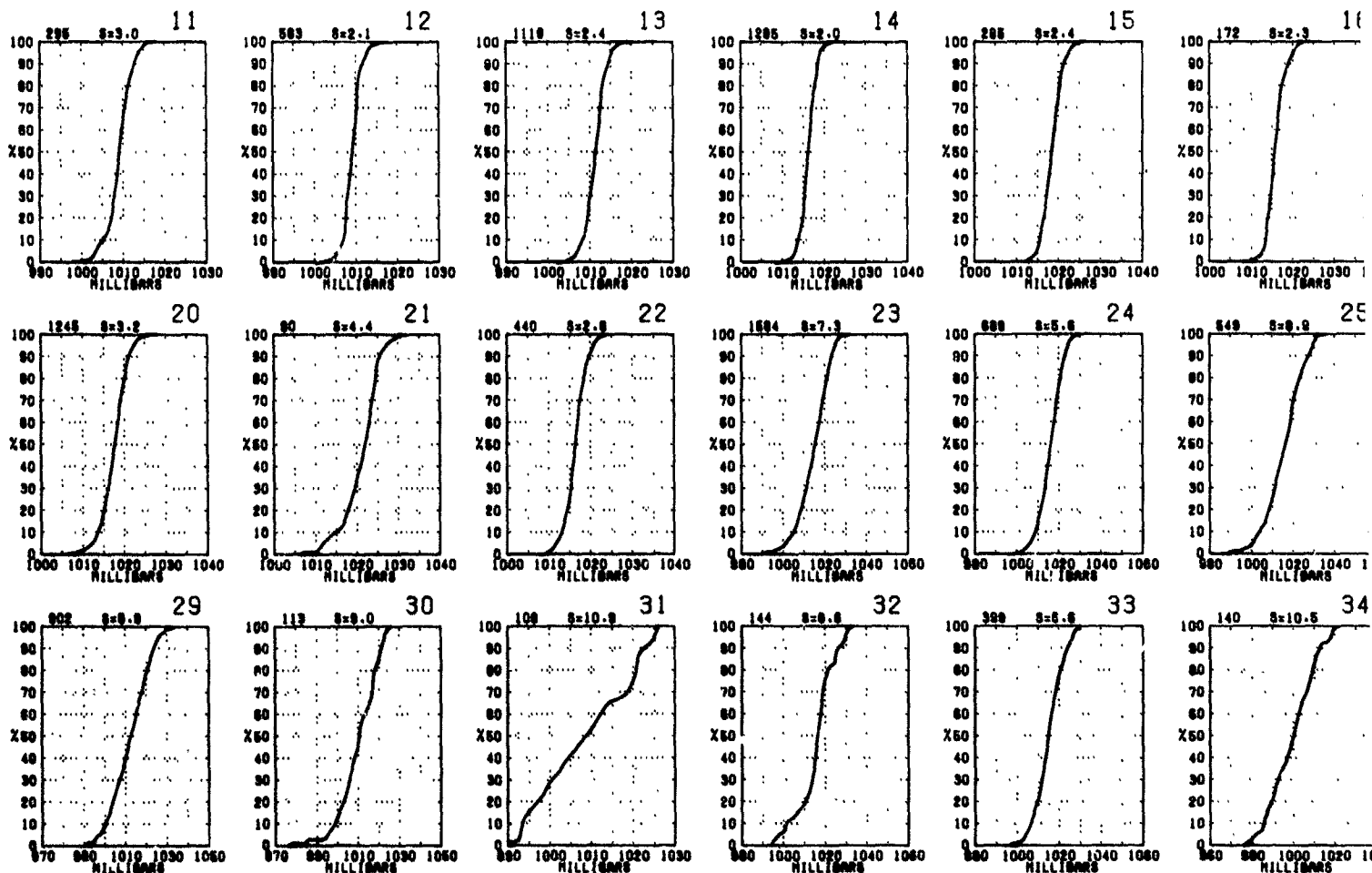
SEA LEVEL PRESSURE

Sea level pressure and mean wind



BLUE LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted

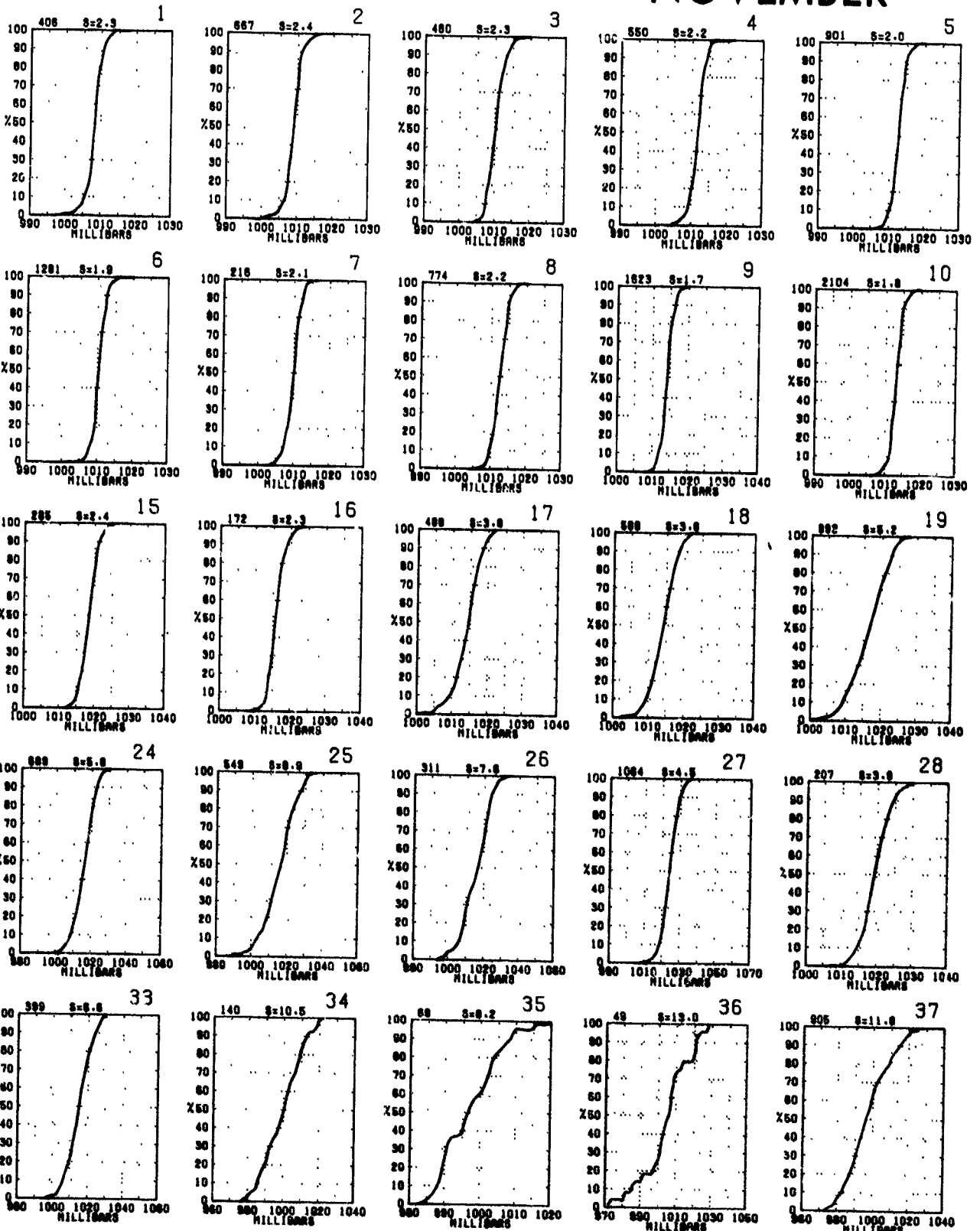
1

NOVEMBER

equal to or less than the

flow occurs with the

ors

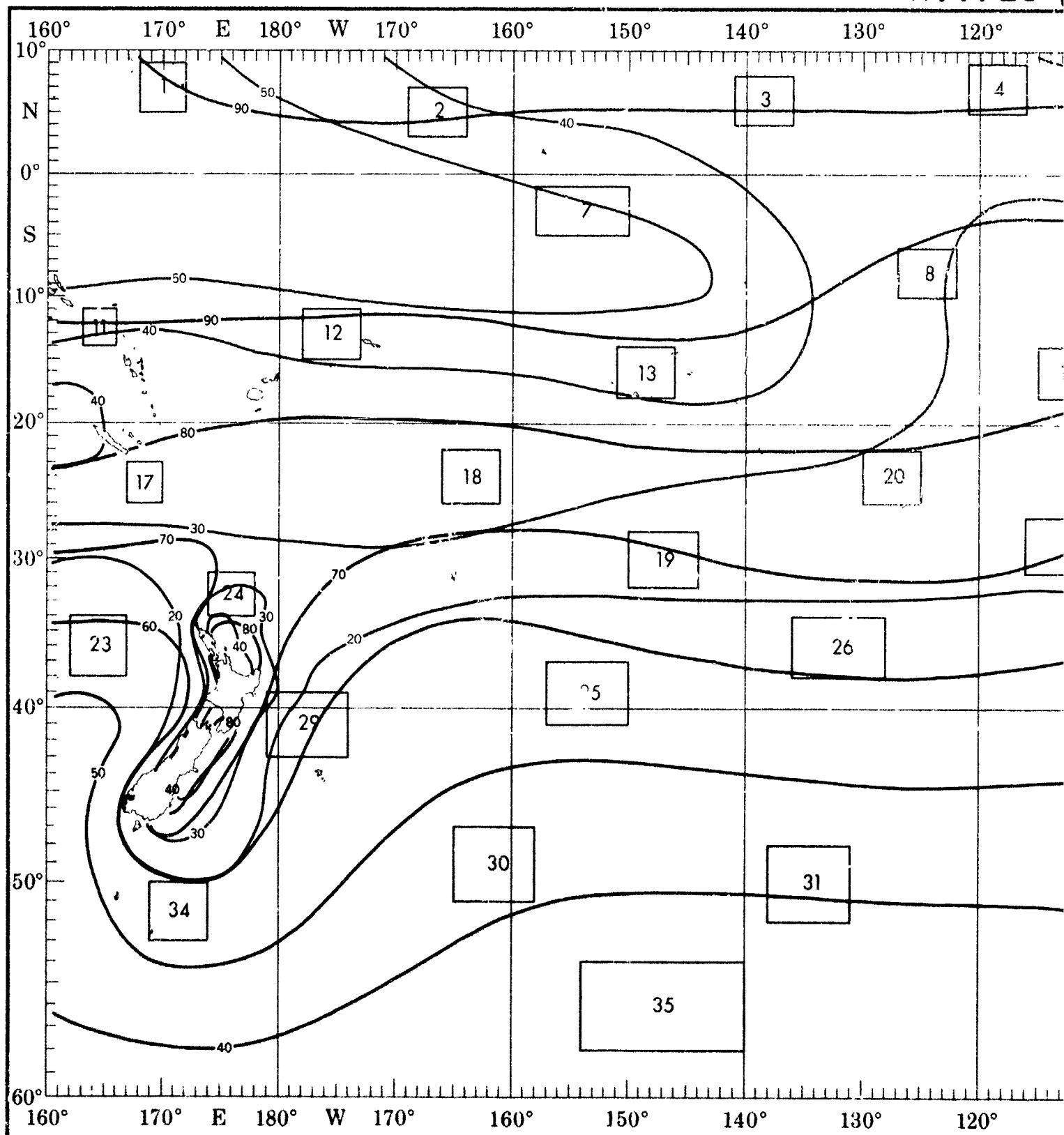


the objective compilation of available data for specified areas without regard to suspected biases.
 (opposite page) are based on all available data subjectively adjusted where bias was evident.

2

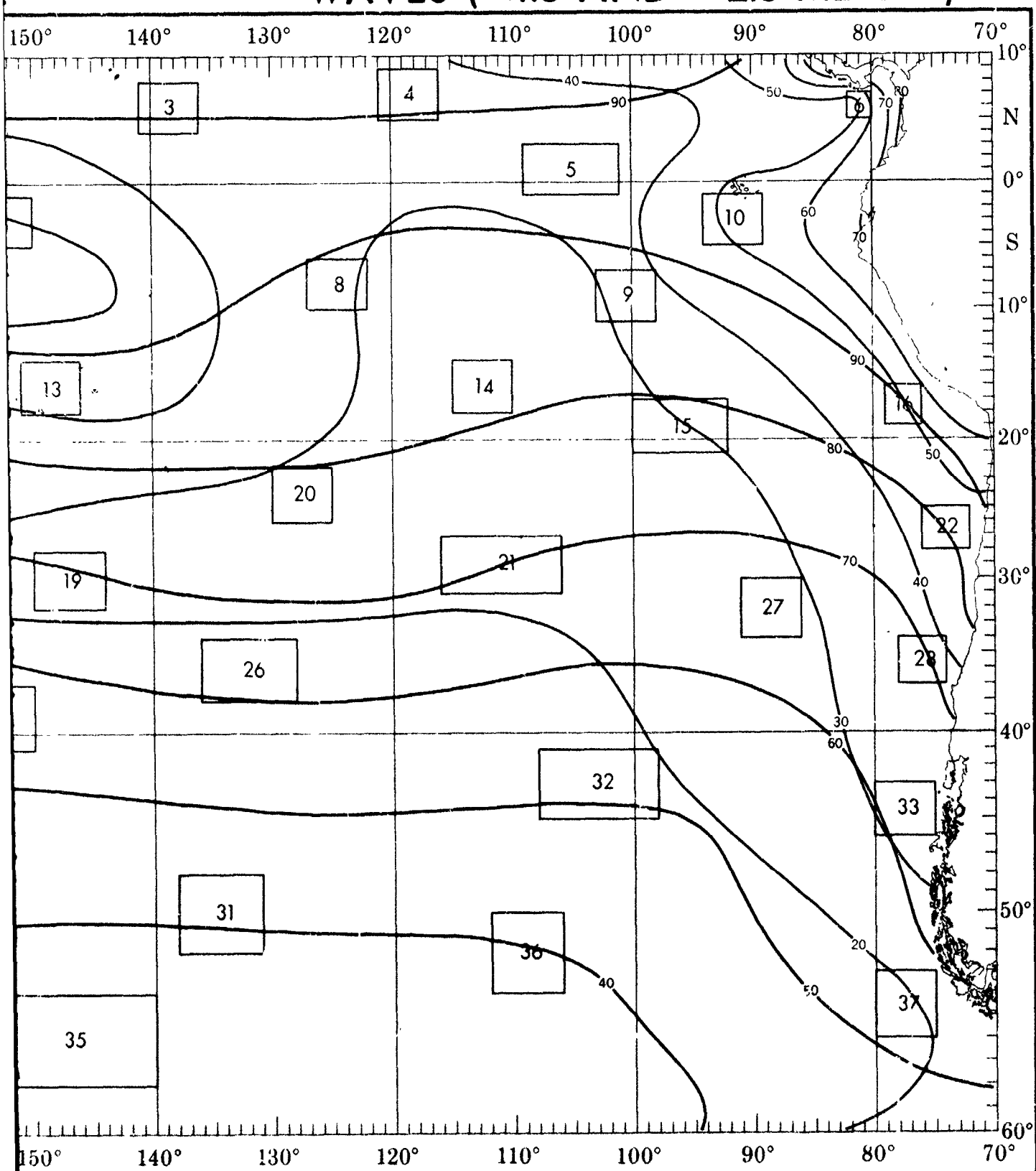
NOVEMBER

WAVES (



1

WAVES (<1.5 AND <2.5 METERS)



1

1

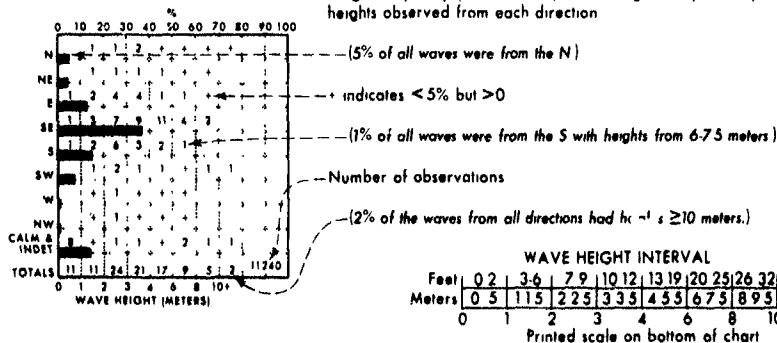
2

WAVE DIRECTION AND HEIGHT

Wave direction and height

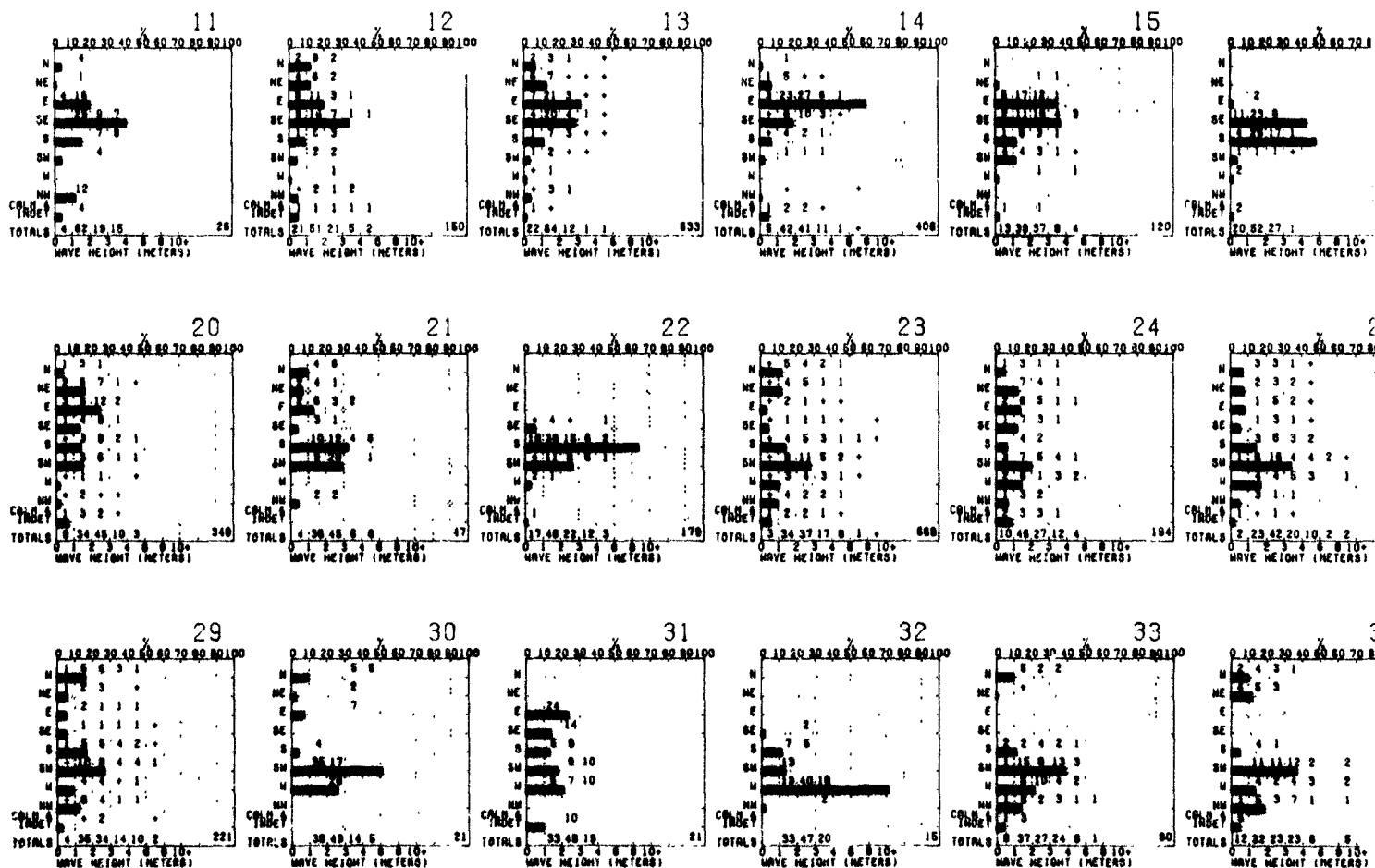
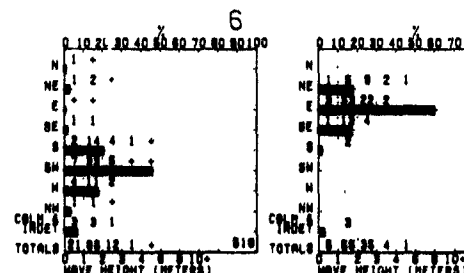
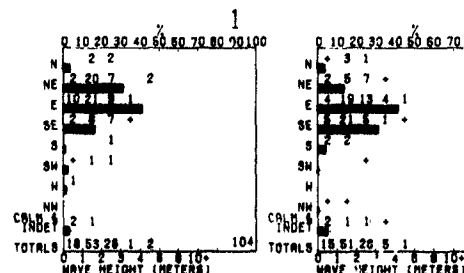
Direction frequency (top scale) Bars represent percent frequency of waves from each direction

Height frequency (bottom scale) Printed figures represent percent frequency of wave heights observed from each direction



BLUE LINE Percent frequency of wave height <15 meters (5 feet)

RED LINE < Percent frequency of wave height <25 meters (8 feet)



Graphs represent the objective compilation of available data for specified areas without re
The isopleth analyses (opposite page) are based on all available data subjectively adjusted

D HEIGHT

NOVEMBER

frequency of waves from
percent frequency of wave

meters)

26.32 ≥ 33
89.5 ≥ 10
10.
part

1000

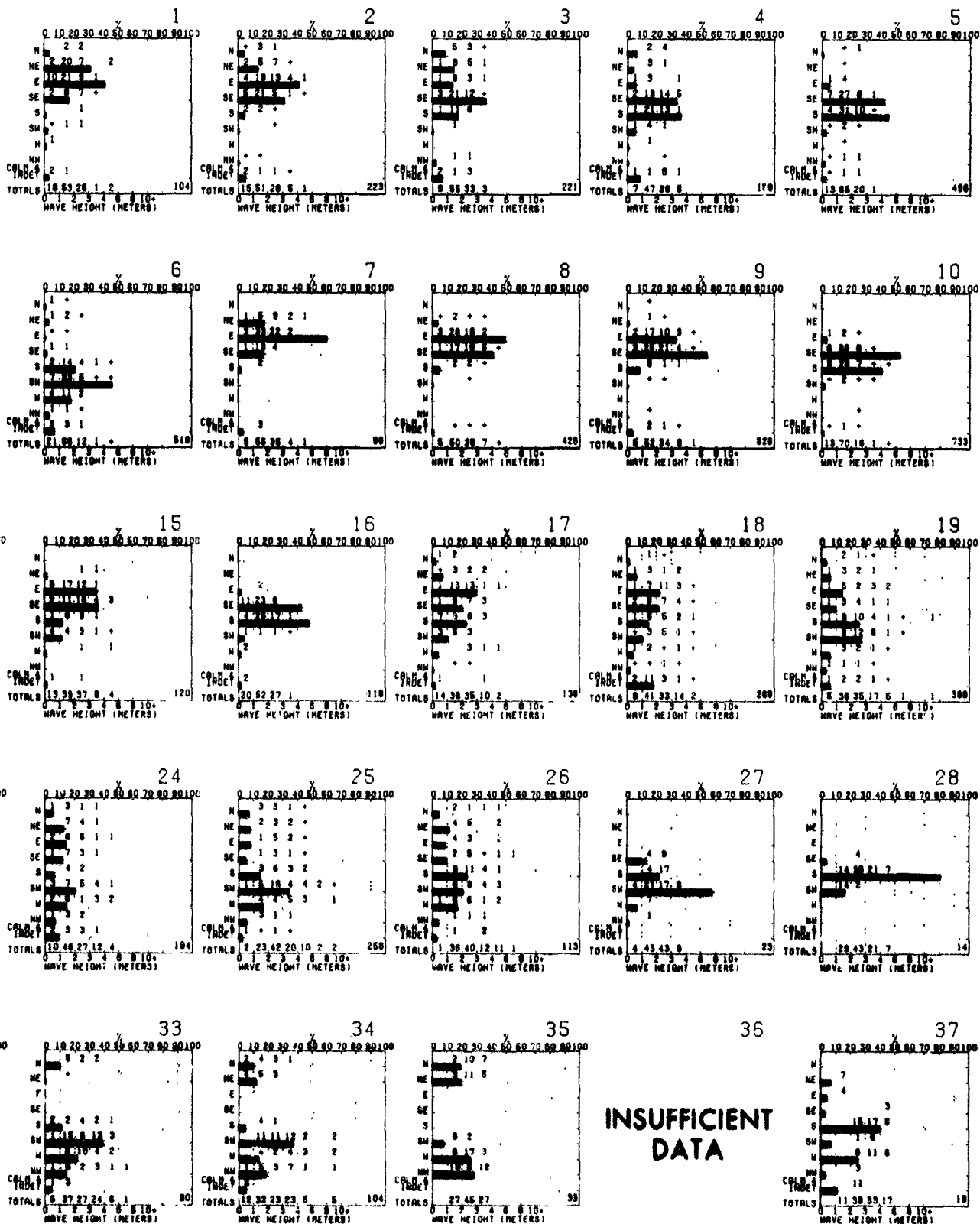
33

1000

33

1000

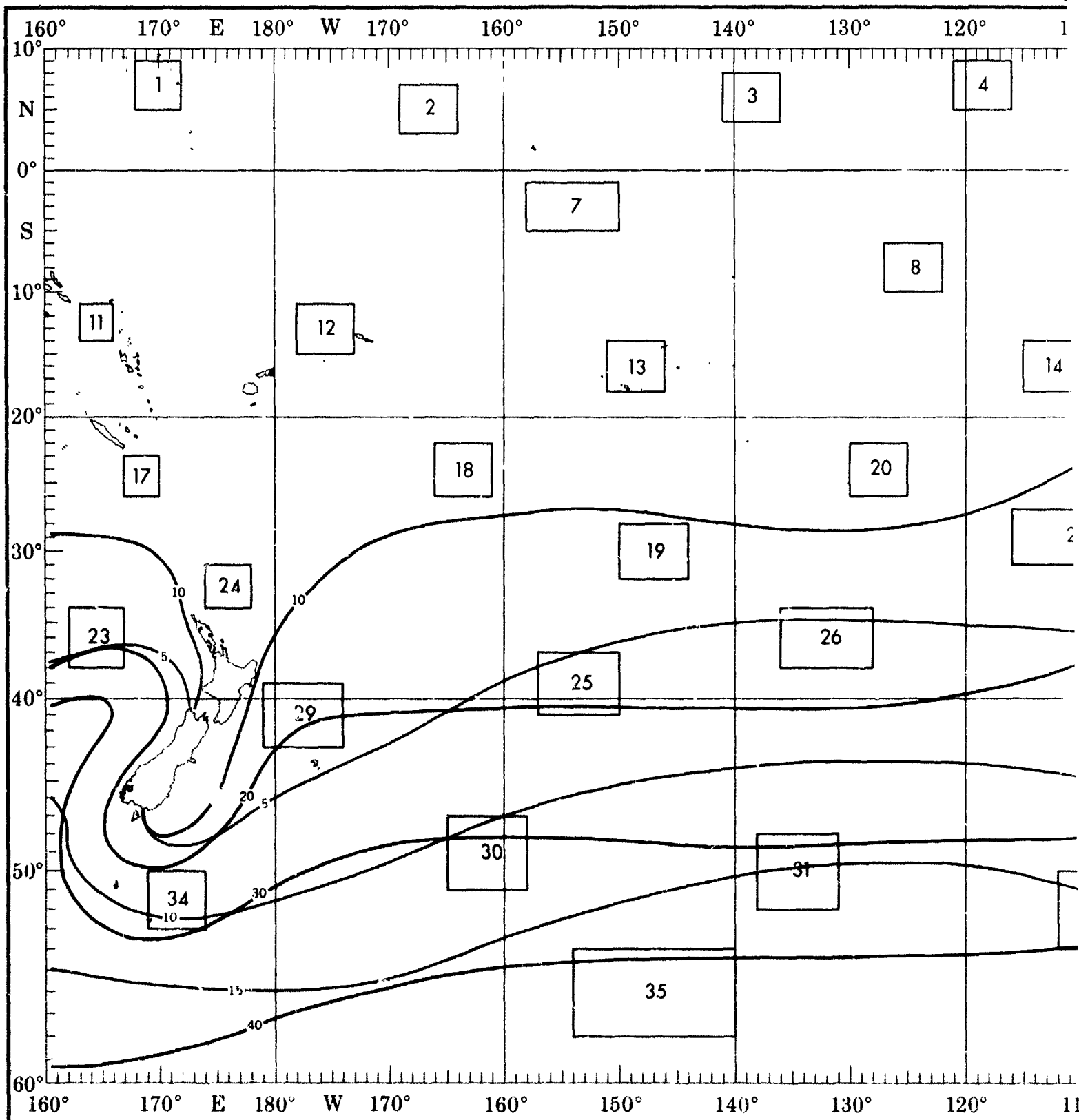
the objective compilation of available data for specified areas without regard to suspected biases.
es (opposite page) are based on all available data subjectively adjusted where bias was evident



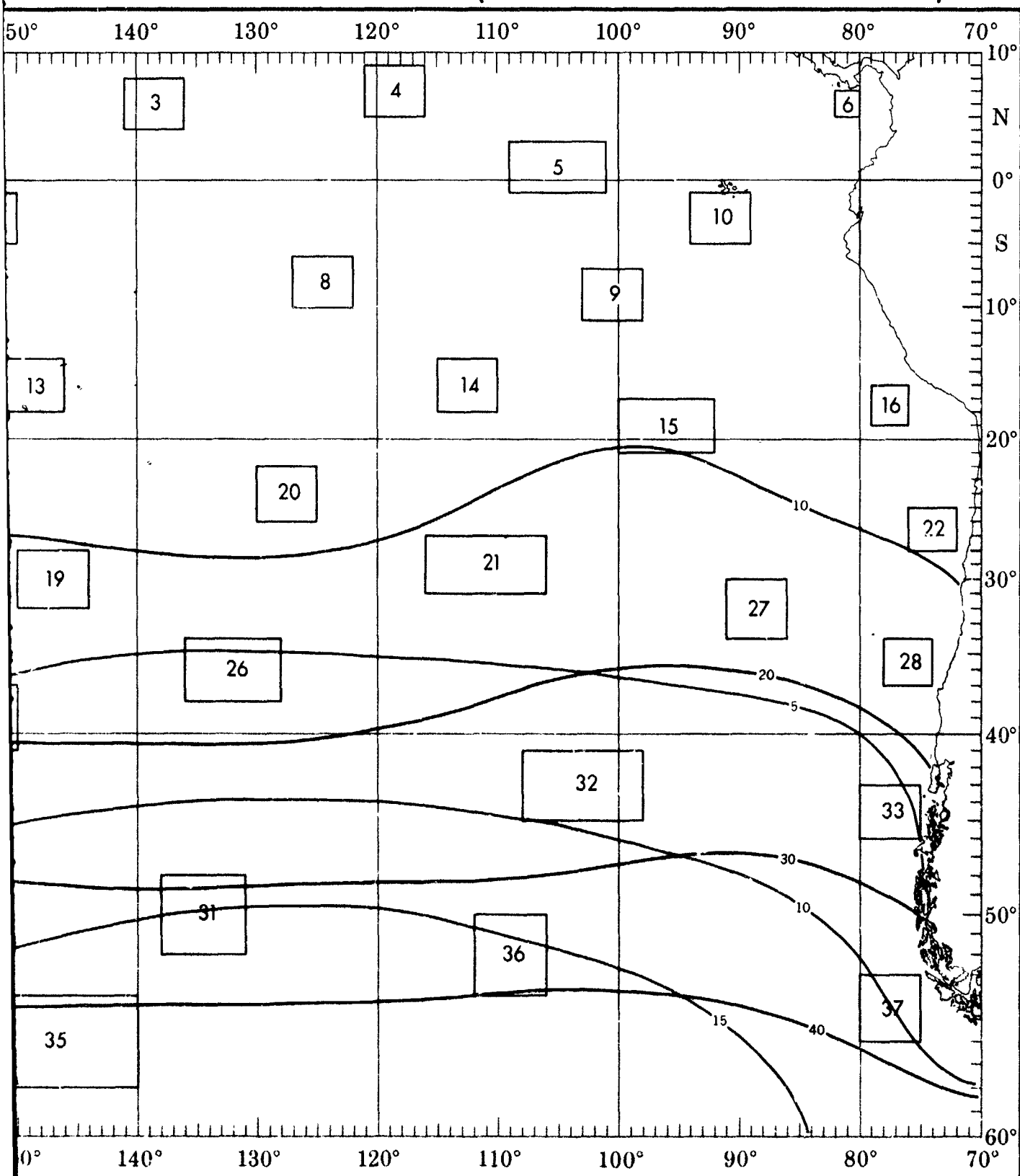
INSUFFICIENT
DATA

NOVEMBER

WAVES (



WAVES (≥ 3.5 AND ≥ 6 METERS)



1 2

WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height

(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

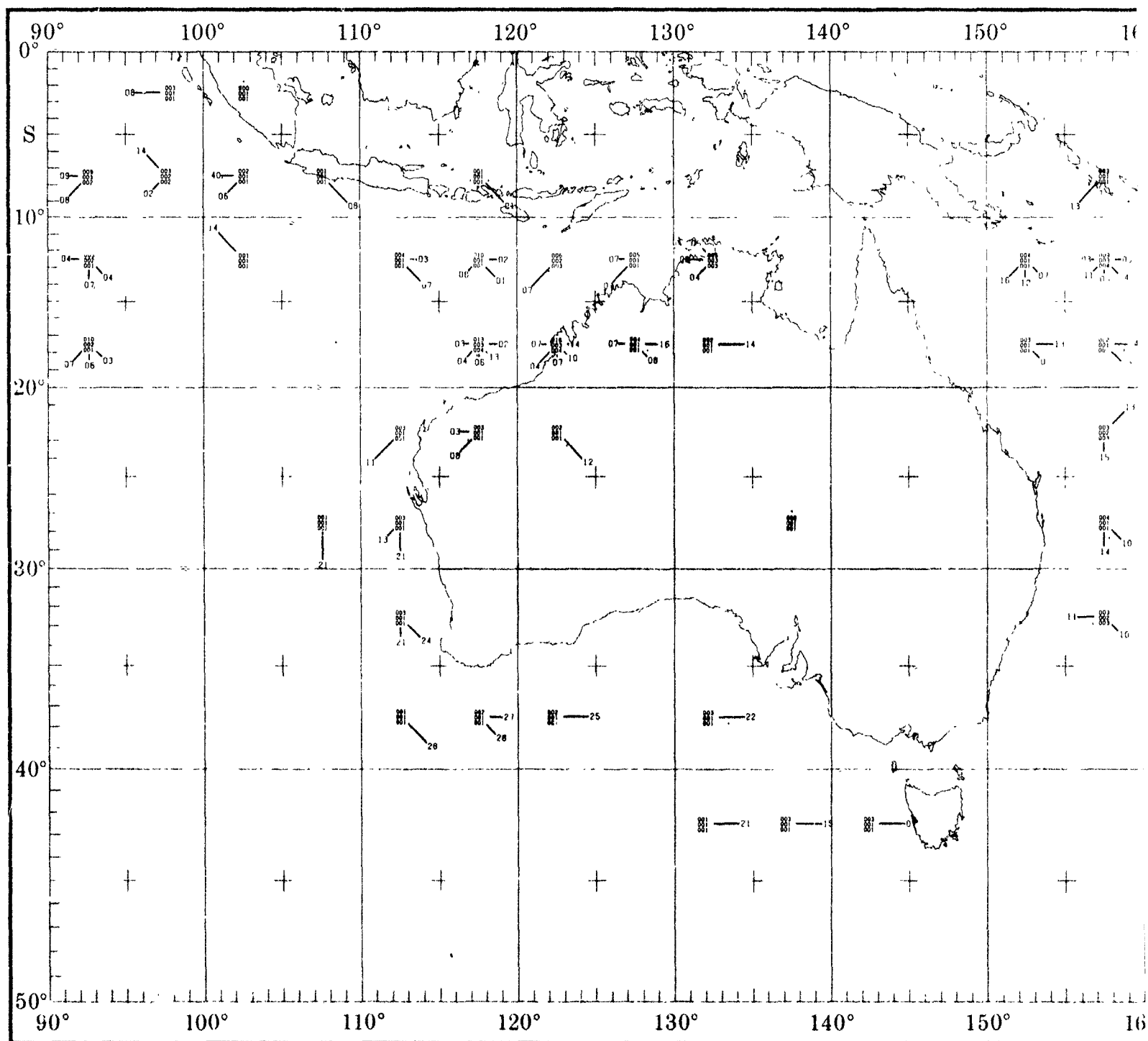
+ indicates <.5% but >0

Number of observations.

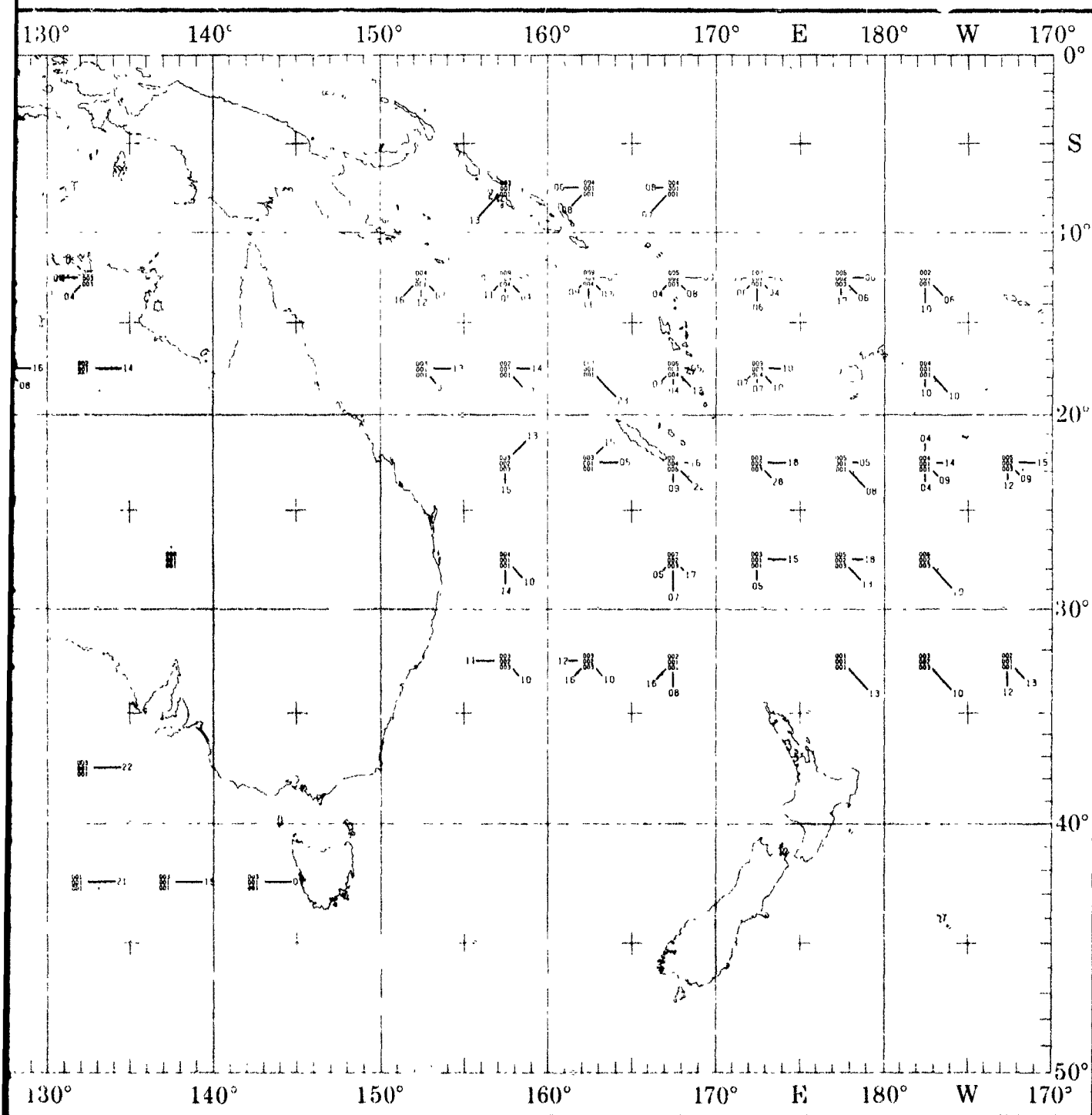
Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

HEIGHT (METERS)	PERIOD (SECONDS)					
	<6	6-7	8-9	10-11	12-13	>13
<0.5	2	1	1	1	1	1
0.5-1	2	1	1	1	1	1
1-1.5	2	1	1	1	1	1
1.5-2	2	1	1	1	1	1
2-2.5	2	1	1	1	1	1
2.5-3	2	1	1	1	1	1
3-3.5	2	1	1	1	1	1
3.5-4	2	1	1	1	1	1
4-4.5	2	1	1	1	1	1
4.5-5	2	1	1	1	1	1
5-5.5	2	1	1	1	1	1
5.5-6	2	1	1	1	1	1
6-6.5	2	1	1	1	1	1
6.5-7	2	1	1	1	1	1
7-7.5	2	1	1	1	1	1
7.5-8	2	1	1	1	1	1
8-8.5	2	1	1	1	1	1
8.5-9	2	1	1	1	1	1
9-9.5	2	1	1	1	1	1
9.5-10	2	1	1	1	1	1
10-10.5	2	1	1	1	1	1
10.5-11	2	1	1	1	1	1
11-11.5	2	1	1	1	1	1
11.5-12	2	1	1	1	1	1
12-12.5	2	1	1	1	1	1
12.5-13	2	1	1	1	1	1
13-13.5	2	1	1	1	1	1
13.5-14	2	1	1	1	1	1
14-14.5	2	1	1	1	1	1
14.5-15	2	1	1	1	1	1
15-15.5	2	1	1	1	1	1
15.5-16	2	1	1	1	1	1
16-16.5	2	1	1	1	1	1
16.5-17	2	1	1	1	1	1
17-17.5	2	1	1	1	1	1
17.5-18	2	1	1	1	1	1
18-18.5	2	1	1	1	1	1
18.5-19	2	1	1	1	1	1
19-19.5	2	1	1	1	1	1
19.5-20	2	1	1	1	1	1
20-20.5	2	1	1	1	1	1
20.5-21	2	1	1	1	1	1
21-21.5	2	1	1	1	1	1
21.5-22	2	1	1	1	1	1
22-22.5	2	1	1	1	1	1
22.5-23	2	1	1	1	1	1
23-23.5	2	1	1	1	1	1
23.5-24	2	1	1	1	1	1
24-24.5	2	1	1	1	1	1
24.5-25	2	1	1	1	1	1
25-25.5	2	1	1	1	1	1
25.5-26	2	1	1	1	1	1
26-26.5	2	1	1	1	1	1
26.5-27	2	1	1	1	1	1
27-27.5	2	1	1	1	1	1
27.5-28	2	1	1	1	1	1
28-28.5	2	1	1	1	1	1
28.5-29	2	1	1	1	1	1
29-29.5	2	1	1	1	1	1
29.5-30	2	1	1	1	1	1
30-30.5	2	1	1	1	1	1
30.5-31	2	1	1	1	1	1
31-31.5	2	1	1	1	1	1
31.5-32	2	1	1	1	1	1
32-32.5	2	1	1	1	1	1
32.5-33	2	1	1	1	1	1
33-33.5	2	1	1	1	1	1
33.5-34	2	1	1	1	1	1
34-34.5	2	1	1	1	1	1
34.5-35	2	1	1	1	1	1
35-35.5	2	1	1	1	1	1
35.5-36	2	1	1	1	1	1
36-36.5	2	1	1	1	1	1
36.5-37	2	1	1	1	1	1
37-37.5	2	1	1	1	1	1
37.5-38	2	1	1	1	1	1
38-38.5	2	1	1	1	1	1
38.5-39	2	1	1	1	1	1
39-39.5	2	1	1	1	1	1
39.5-40	2	1	1	1	1	1
40-40.5	2	1	1	1	1	1
40.5-41	2	1	1	1	1	1
41-41.5	2	1	1	1	1	1
41.5-42	2	1	1	1	1	1
42-42.5	2	1	1	1	1	1
42.5-43	2	1	1	1	1	1
43-43.5	2	1	1	1	1	1
43.5-44	2	1	1	1	1	1
44-44.5	2	1	1	1	1	1
44.5-45	2	1	1	1	1	1
45-45.5	2	1	1	1	1	1
45.5-46	2	1	1	1	1	1
46-46.5	2	1	1	1	1	1
46.5-47	2	1	1	1	1	1
47-47.5	2	1	1	1	1	1
47.5-48	2	1	1	1	1	1
48-48.5	2	1	1	1	1	1
48.5-49	2	1	1	1	1	1
49-49.5	2	1	1	1	1	1
49.5-50	2	1	1	1	1	1
50-50.5	2	1	1	1	1	1
50.5-51	2	1	1	1	1	1
51-51.5	2	1	1	1	1	1
51.5-52	2	1	1	1	1	1
52-52.5	2	1	1	1	1	1
52.5-53	2	1	1	1	1	1
53-53.5	2	1	1	1	1	1
53.5-54	2	1	1	1	1	1
54-54.5	2	1	1	1	1	1
54.5-55	2	1	1	1	1	1
55-55.5	2	1	1	1	1	1
55.5-56	2	1	1	1	1	1
56-56.5	2	1	1	1	1	1
56.5-57	2	1	1	1	1	1
57-57.5	2	1	1	1	1	1
57.5-58	2	1	1	1	1	1
58-58.5	2	1	1	1	1	1
58.5-59	2	1	1	1	1	1
59-59.5	2	1	1	1	1	1
59.5-60	2	1	1	1	1	1
60-60.5	2	1	1	1	1	1
60.5-61	2	1	1	1	1	1
61-61.5	2	1	1	1	1	1
61.5-62	2	1	1	1	1	1
62-62.5	2	1	1	1	1	1
62.5-63	2	1	1	1	1	1
63-63.5	2	1	1	1	1	1
63.5-64	2	1	1	1	1	1
64-64.5	2	1	1	1	1	1
64.5-65	2	1	1	1	1	1
65-65.5	2	1	1	1	1	1
65.5-66	2	1	1	1	1	1
66-66.5	2	1	1	1	1	1
66.5-67	2	1	1	1	1	1
67-67.5	2	1	1	1	1	1
67.5-68	2	1	1	1	1	1
68-68.5	2	1	1	1	1	1
68.5-69	2	1	1	1	1	1
69-69.5	2	1	1	1	1	1
69.5-70	2	1	1	1	1	1
70-70.5	2	1	1	1	1	1
70.5-71	2	1	1	1	1	1
71-71.5	2	1	1	1	1	1
71.5-72	2	1	1	1	1	1
72-72.5	2	1	1	1	1	1
72.5-73	2	1	1	1	1	1
73-73.5	2	1	1	1	1	1
73.5-74	2	1	1	1	1	1
74-74.5	2	1	1	1	1	1
74.5-75	2	1	1	1	1	1
75-75.5	2	1	1	1	1	1
75.5-76	2	1	1	1	1	1
76-76.5	2	1	1	1	1	1
76.5-77	2	1	1	1	1	1
77-77.5	2	1	1	1	1	1
77.5-78	2	1	1	1	1	1
78-78.5	2	1	1	1	1	1
78.5-79	2	1	1	1	1	1
79-79.5	2	1	1	1	1	1
79.5-80	2	1	1	1	1	1
80-80.5	2	1	1	1	1	1
80.5-81	2	1	1	1	1	1
81-81.5	2	1	1	1	1	1
81.5-82	2	1	1	1	1	1
82-82.5	2	1	1	1	1	1
82.5-83	2	1	1	1	1	1
83-83.5	2	1	1	1	1	1
83.5-84	2	1	1	1	1	1
84-84.5	2	1	1	1	1	1
84.5-85	2	1	1	1	1	1
85-85.5	2	1	1	1	1	1
85.5-86	2	1	1	1	1	1
86-86.5	2	1	1	1	1	1
86.5-87	2	1	1	1	1	1
87-87.5	2	1	1	1	1	1
87.5-88	2	1	1	1	1	1
88-88.5	2	1	1	1	1	1
88.5-89	2	1	1	1	1	1
89-89.5	2	1	1	1	1	1
89.5-90	2	1	1	1	1	1
90-90.5	2	1	1	1	1	1
90.5-91	2	1	1	1	1	1
91-91.5	2	1	1	1	1	1
91.5-92	2	1	1	1	1	1
92-92.5	2	1	1	1	1	1
92.5-93	2	1	1	1	1	1
93-93.5	2	1	1	1	1	1
93.5-94	2	1	1	1	1	1
94-94.5	2	1	1	1	1	1
94.5-95	2	1	1	1	1	1
95-95.5	2	1	1	1	1	1
95.5-96	2	1	1	1	1	1
96-96.5	2	1	1	1	1	1
96.5-97	2	1	1	1	1	1
97-97.5	2	1	1	1	1	1

NOVEMBER

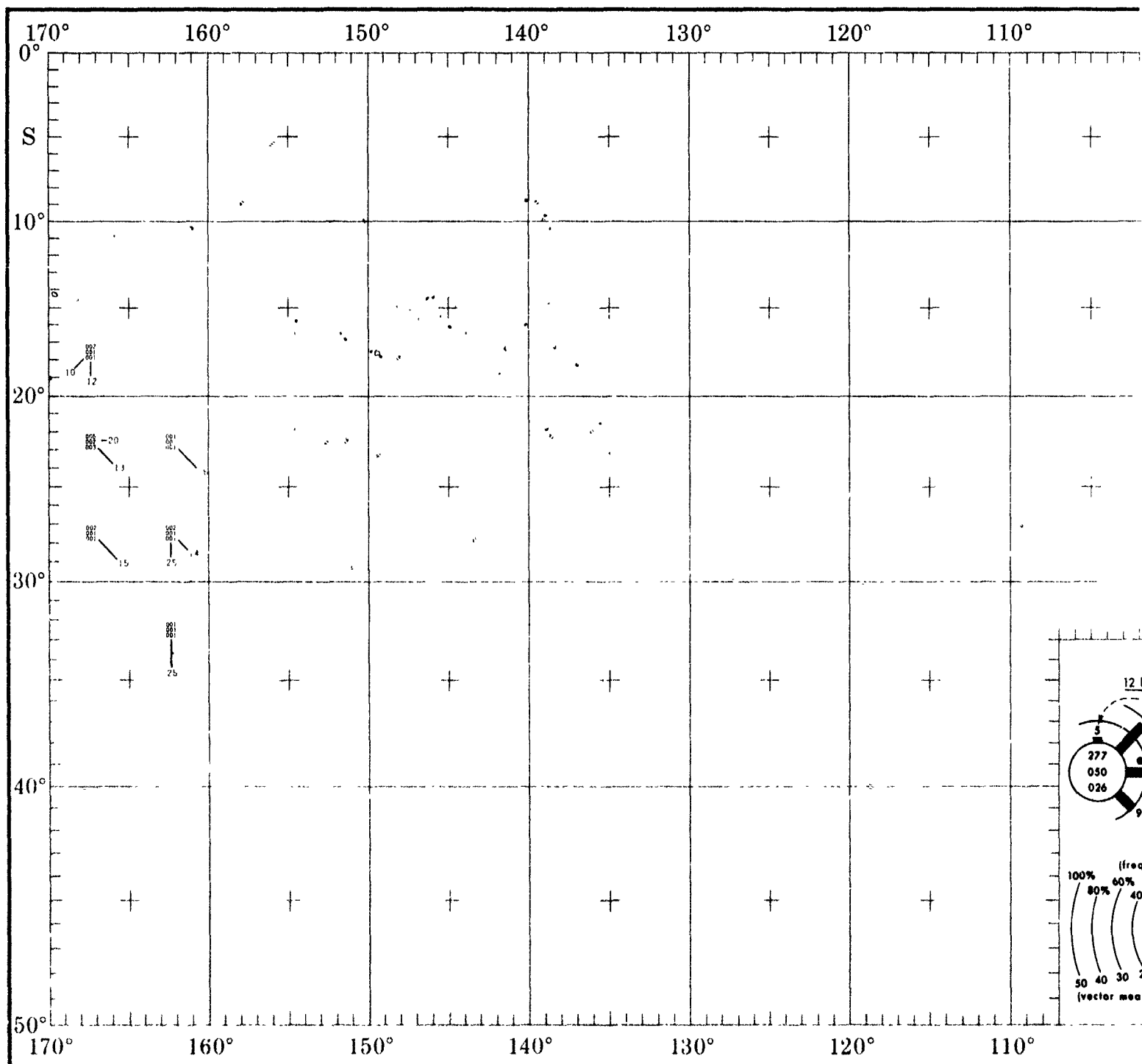


TROPICAL CYCLONE

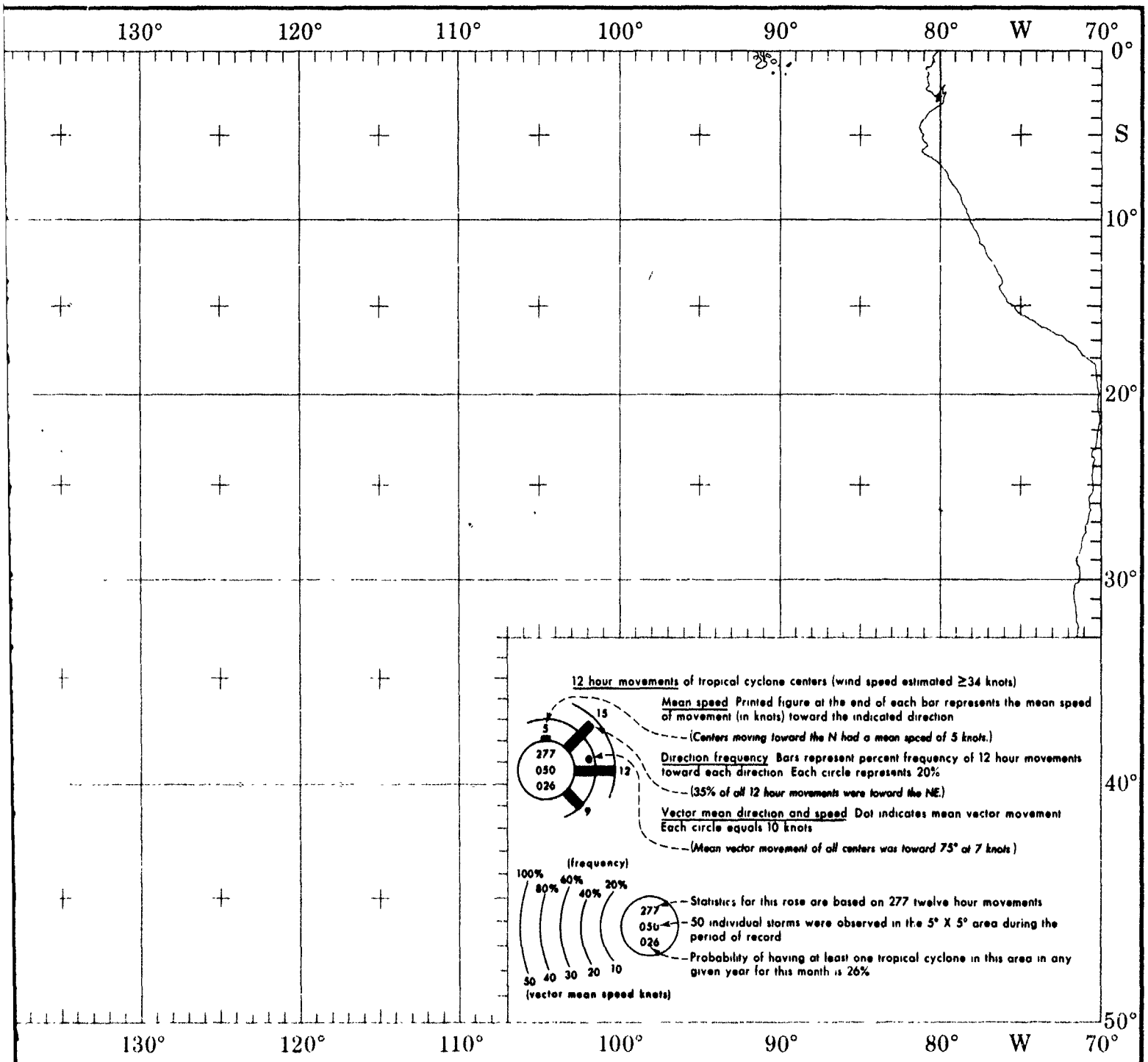


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TROPICAL CYCLONE



NOVEMBER

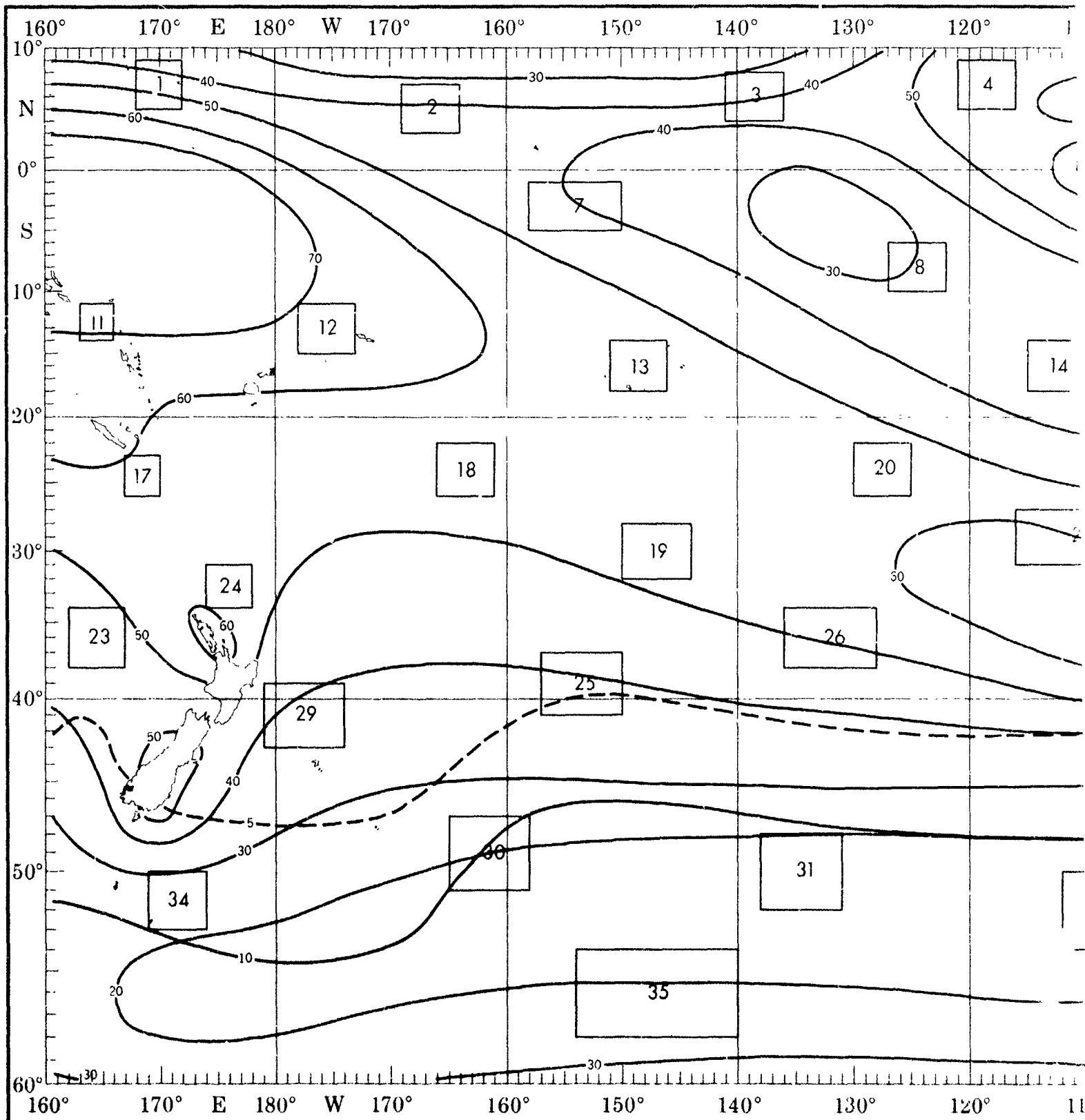


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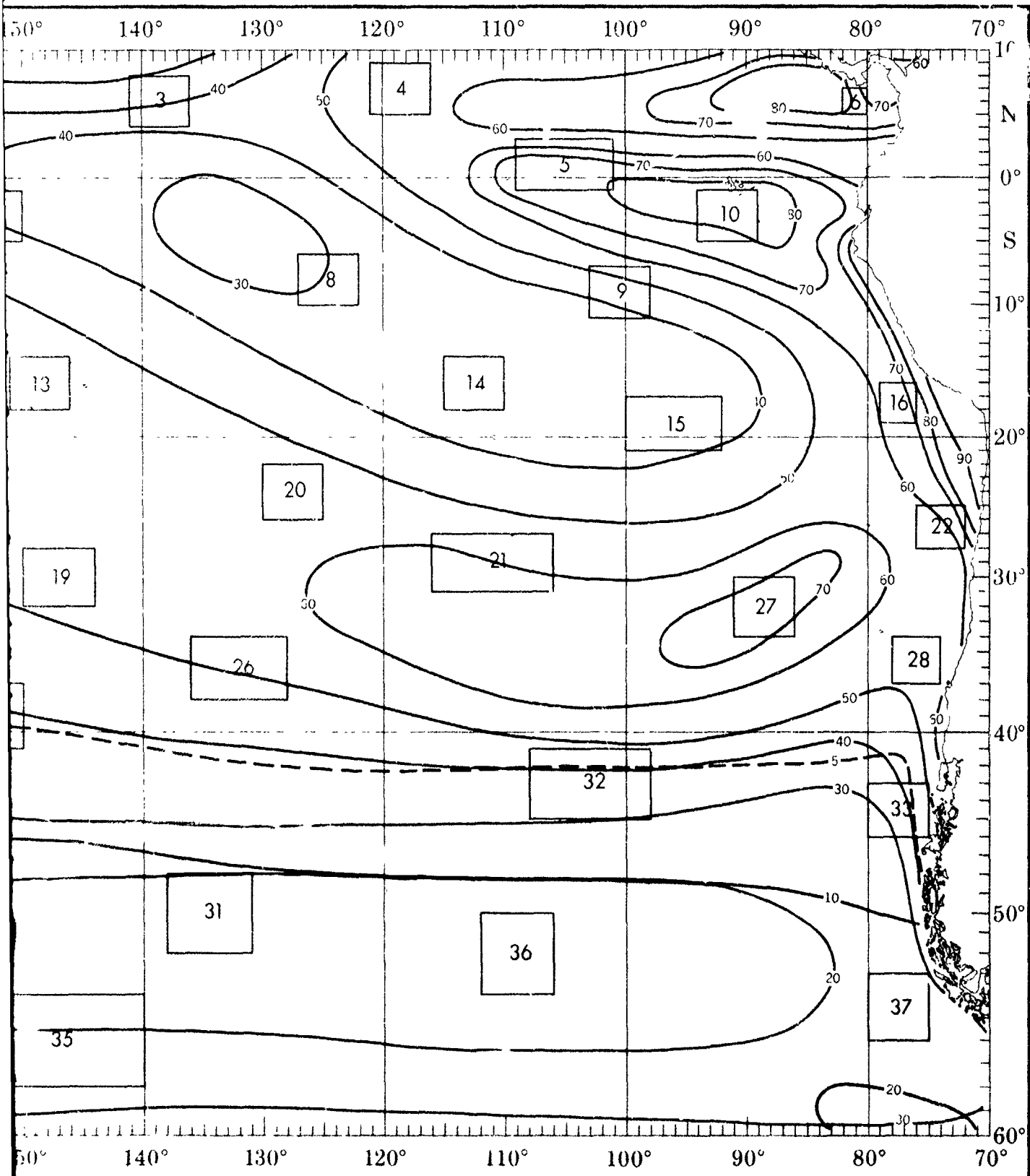
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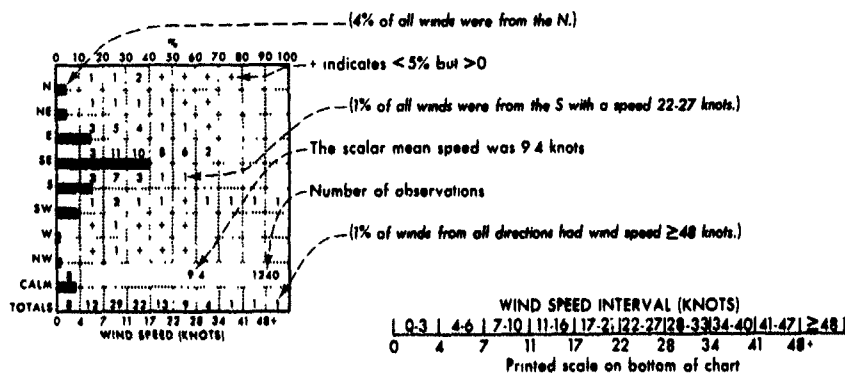


SURFACE WINDS



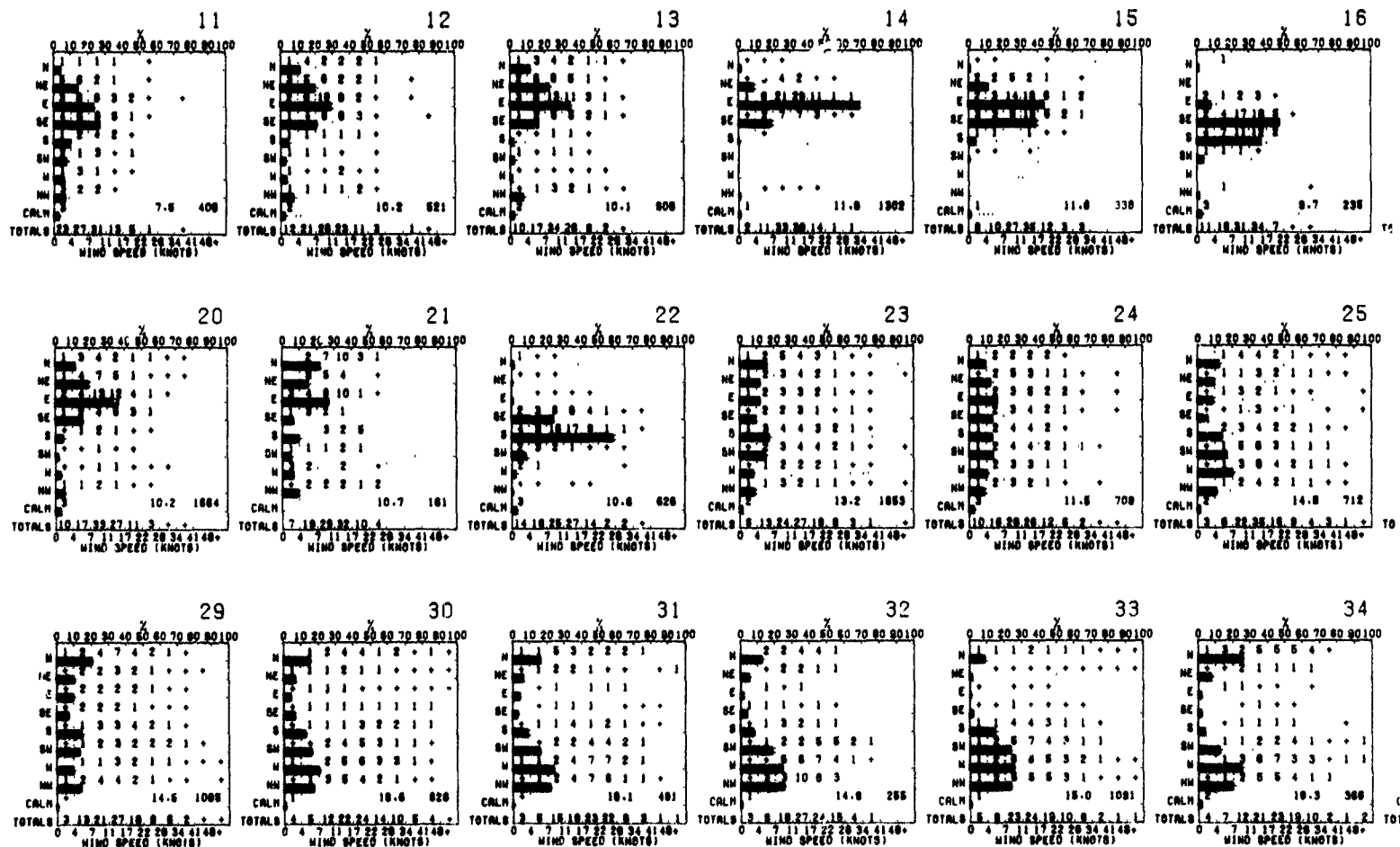
WIND DIRECTION AND SPEED

Direction frequency (top scale). Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale). Printed figures represent percent frequency of wind speeds observed from each direction.



BLUE LINE - Percent frequency of wind speed ≤ 10 knots

RED LINE - Percent frequency of wind speed ≥ 34 knots

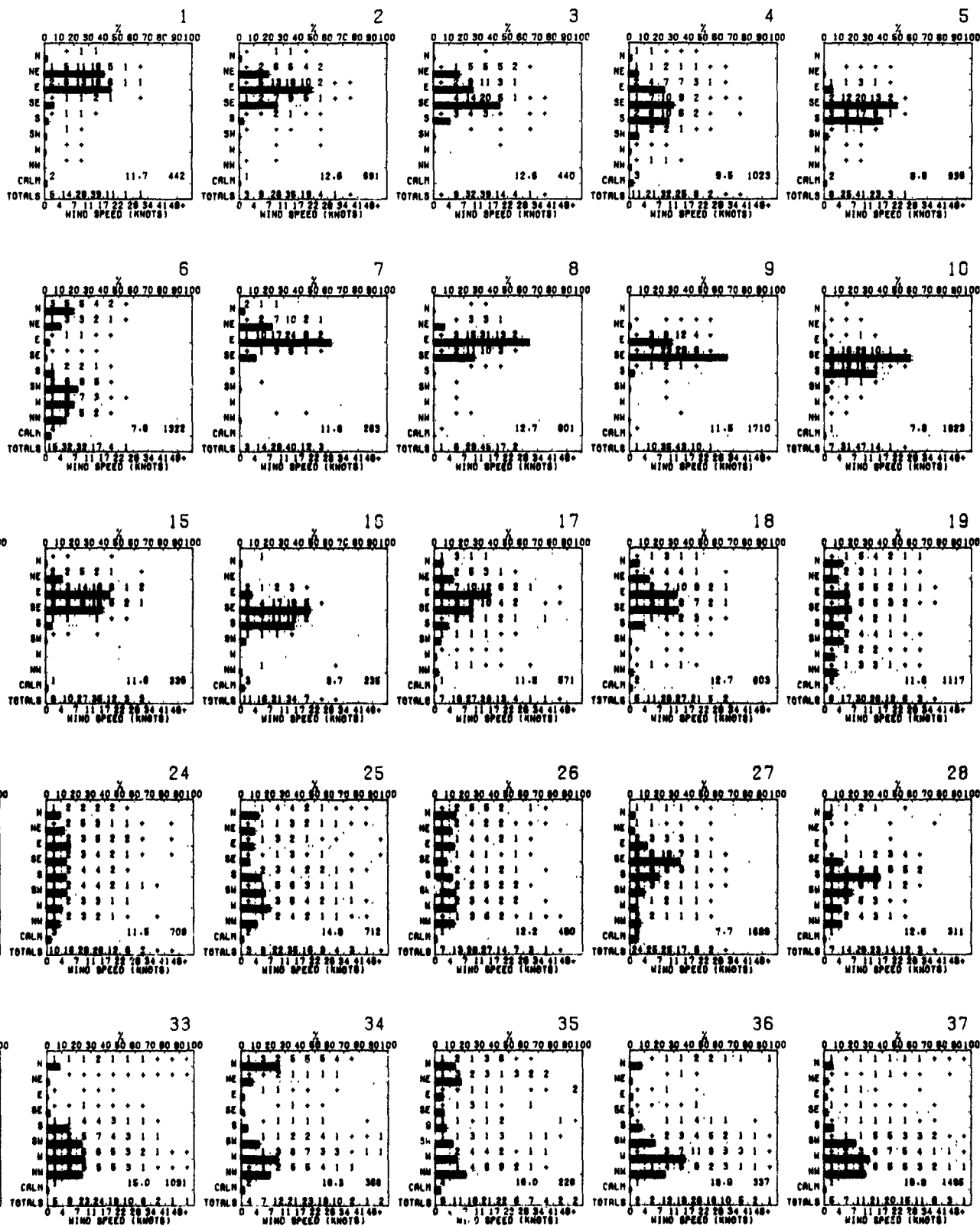


Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

SPEED

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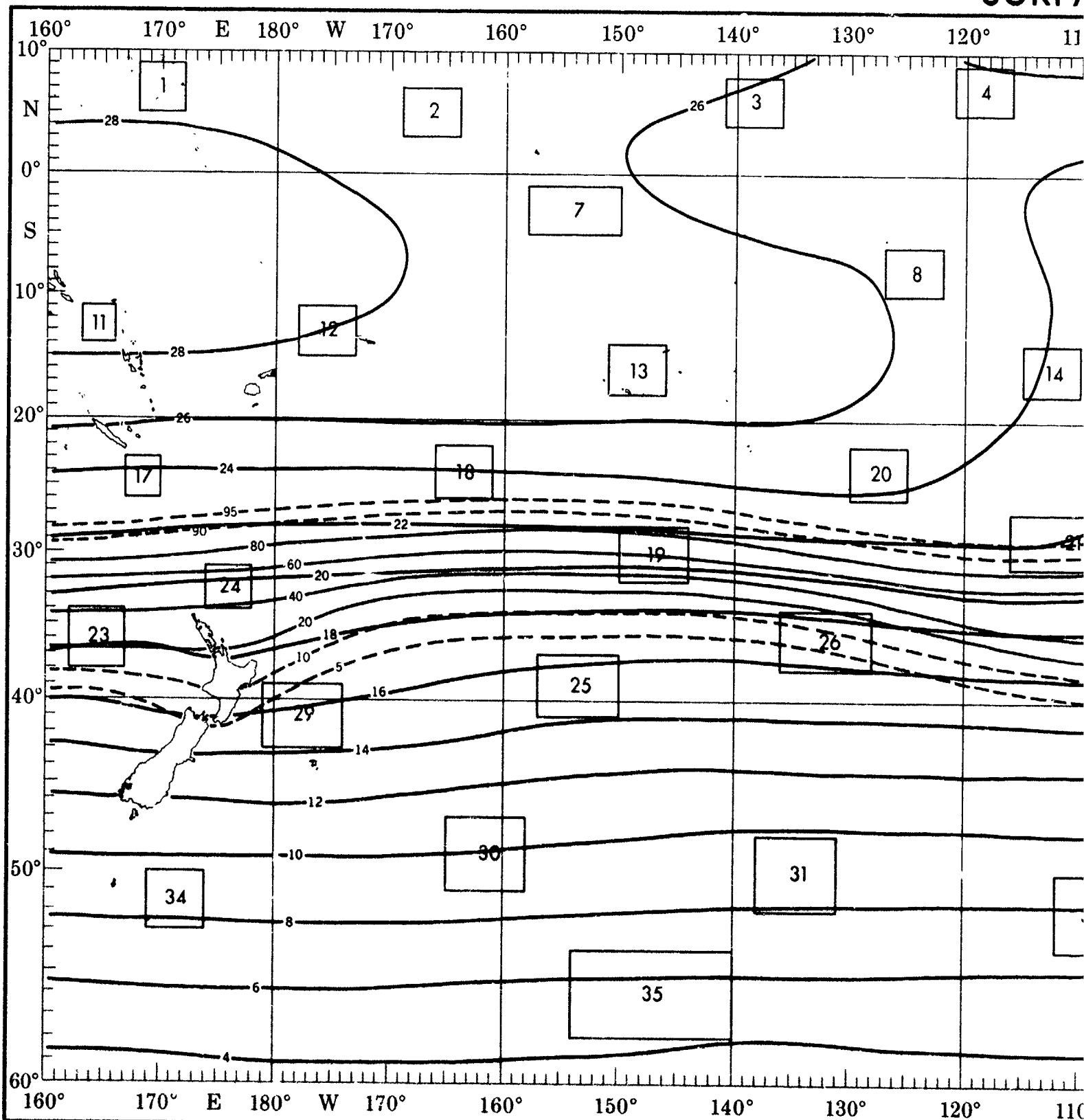
rection Speed frequency
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objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

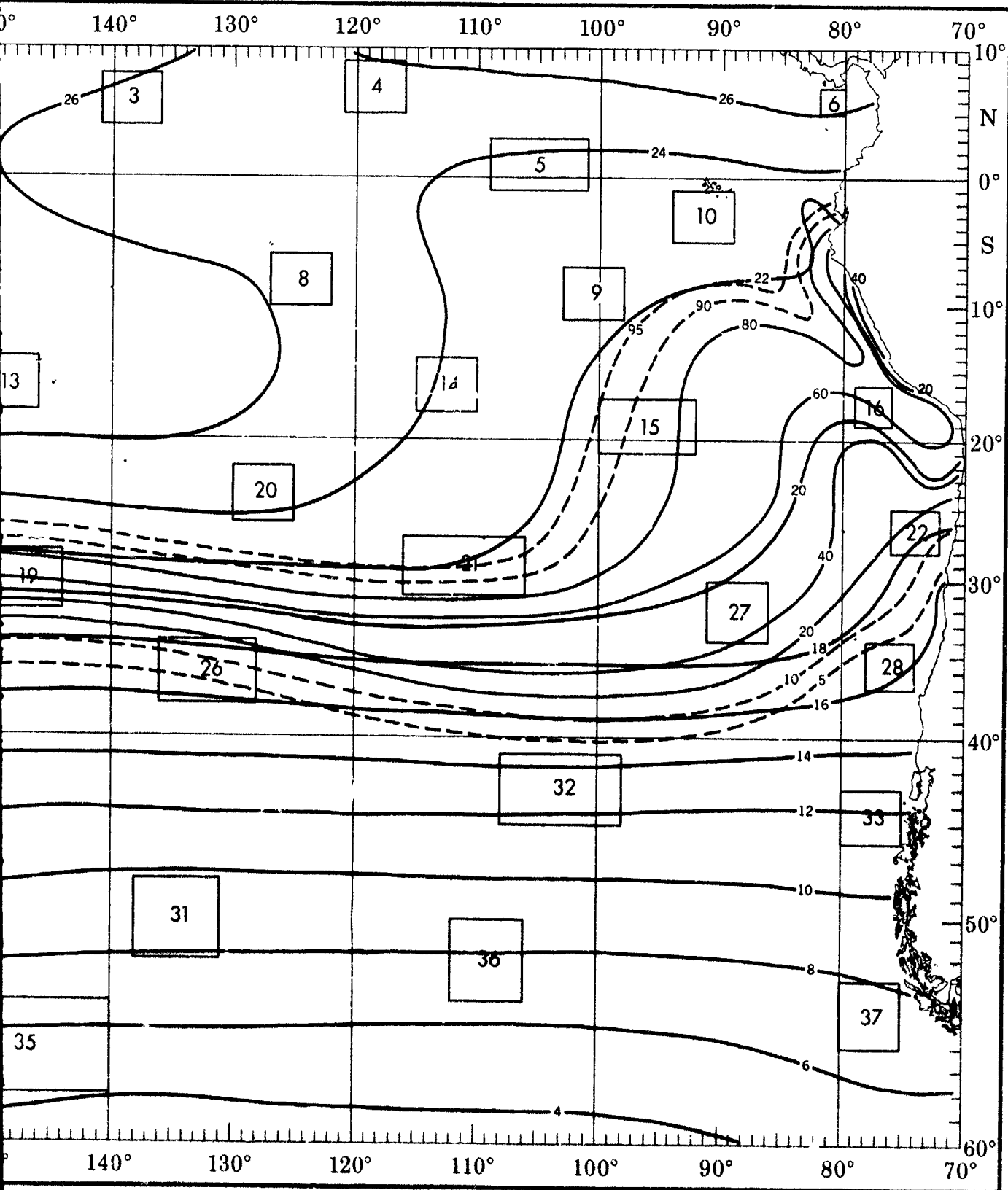
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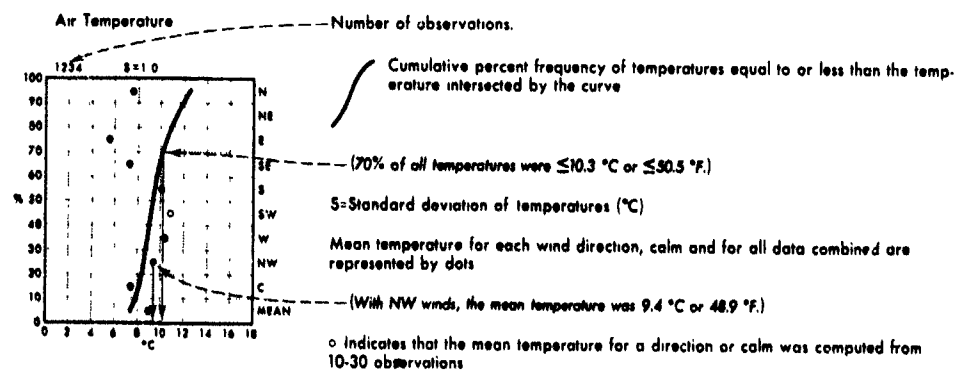


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SURFACE AIR TEMPERATURE



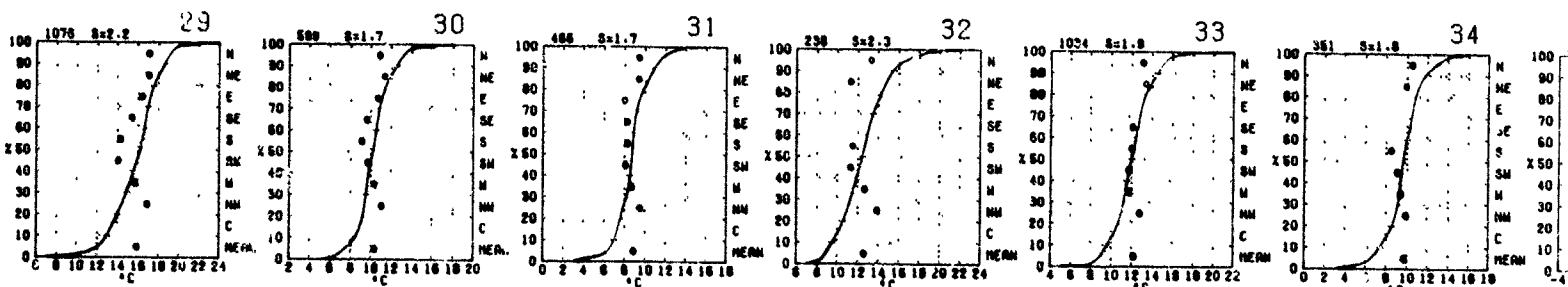
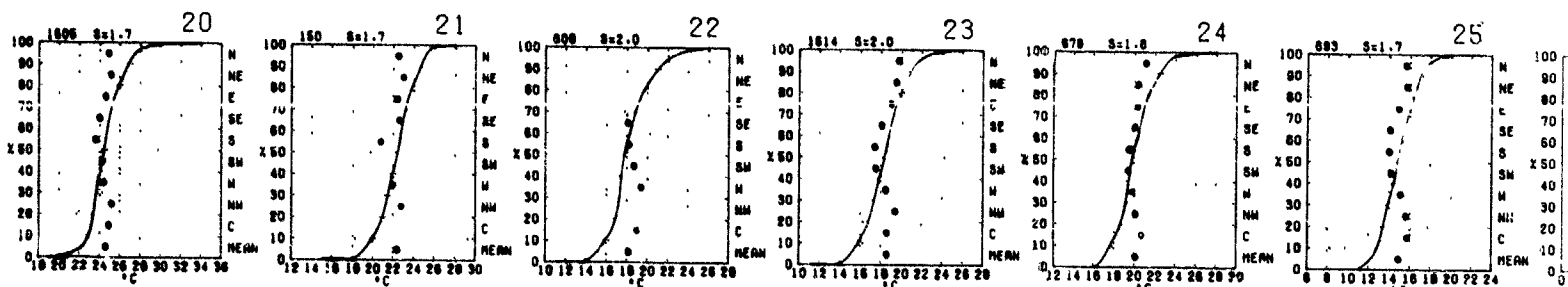
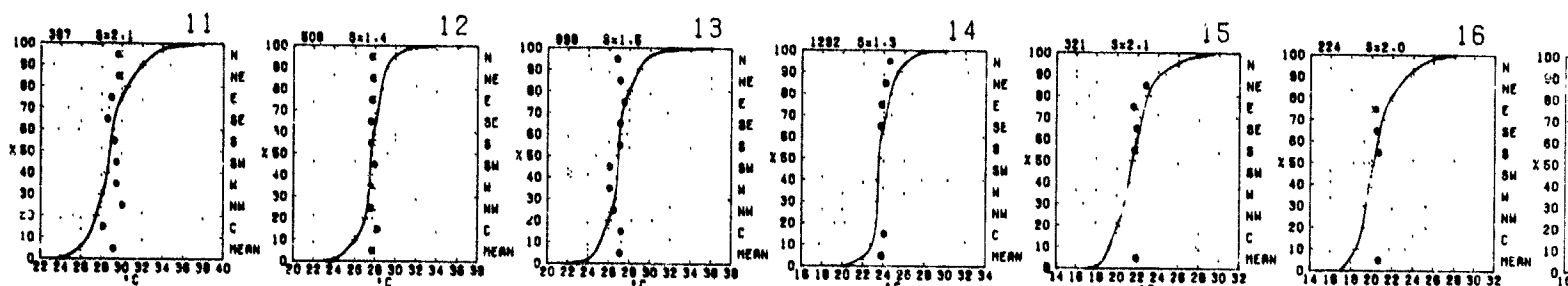
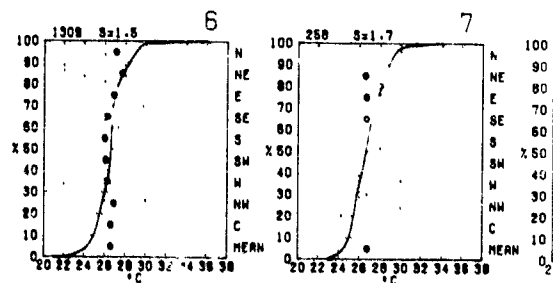
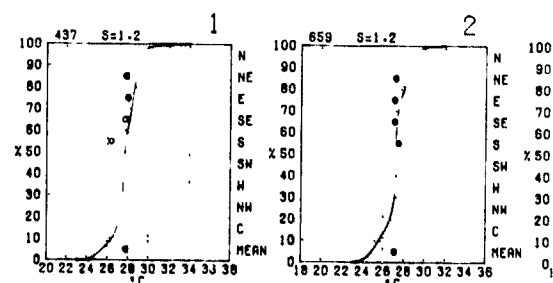
SURFACE AIR TEMPERATURE



The mean temperature is omitted when less than 10 observations for a direction or calm were available

BLACK LINE - Mean air temperature ($^{\circ}\text{C}$)

RED LINE - Percent frequency of temperature $\geq 20^{\circ}\text{C}$ (68°F)



Graphs represent the objective compilation of available data for specified areas without regard to The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

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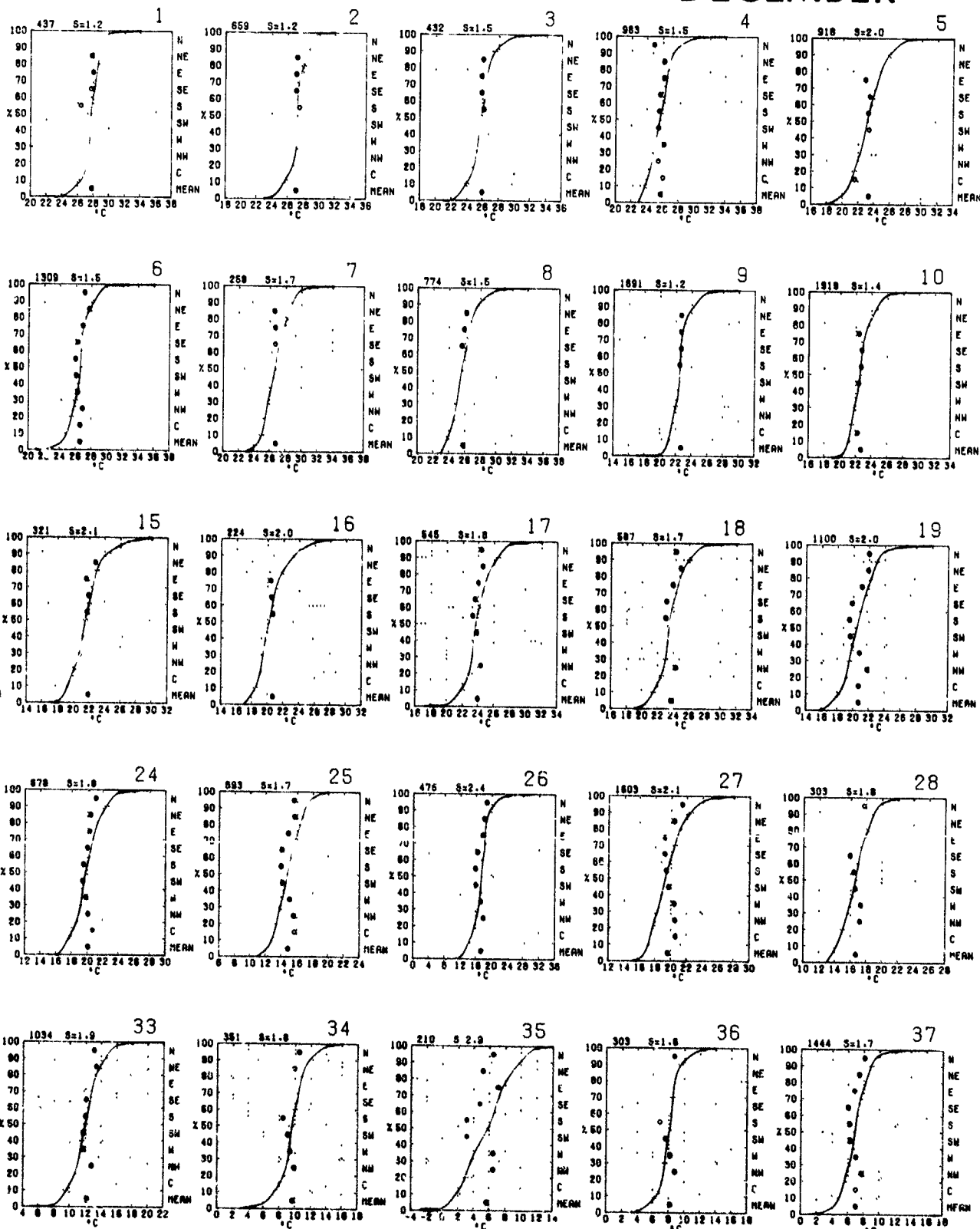
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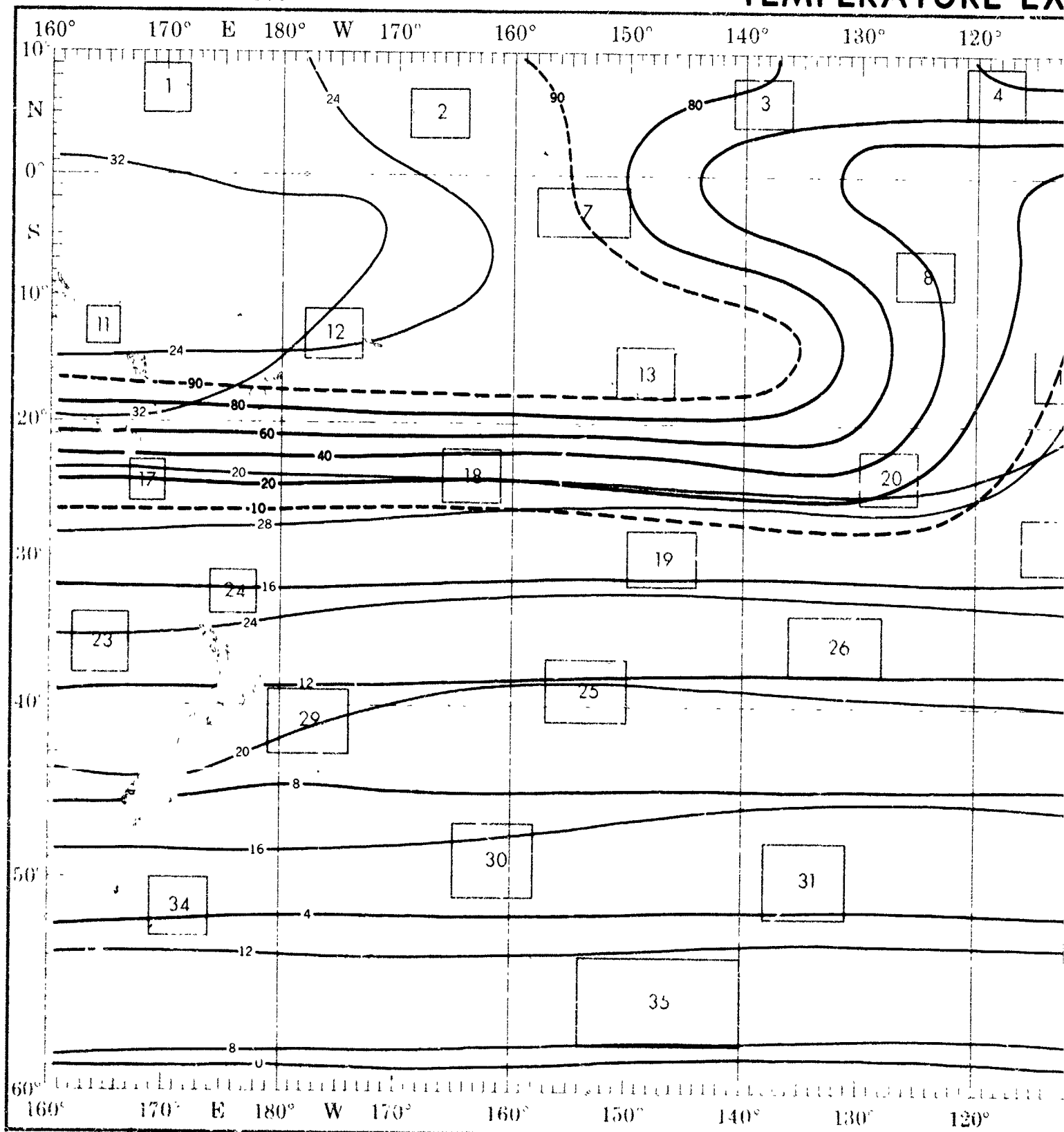
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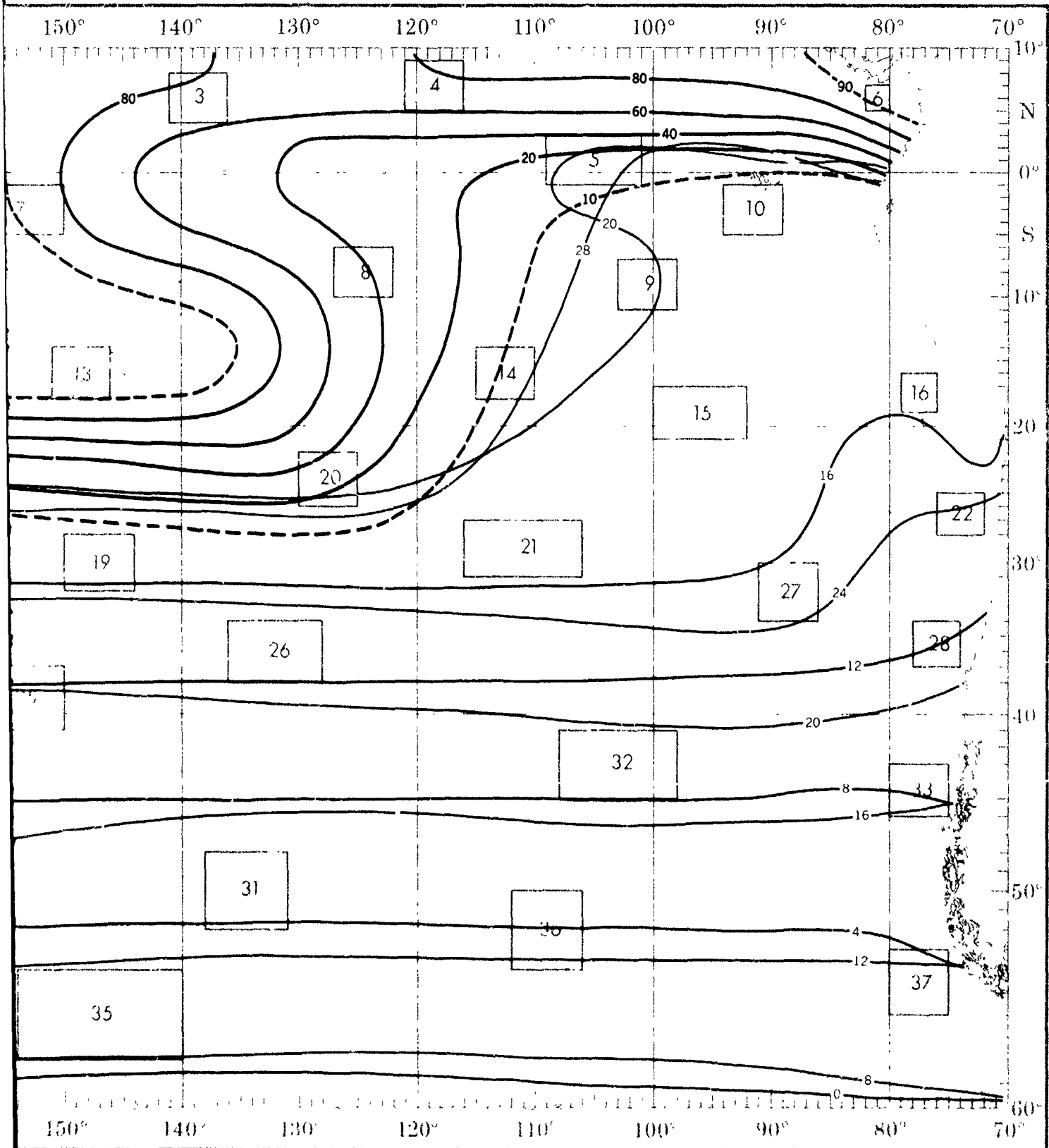
Objective compilation of available data for specified areas without regard to suspected biases.
 (opposite page) are based on all available data subjectively adjusted where bias was evident

DECEMBER

TEMPERATURE EX



TEMPERATURE EXTREMES AND T-H INDEX



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WIND SPEED AND AIR TEMPERATURE

Wind speed and air temperature

Percent frequency of simultaneous occurrence of specified temperature (°C) and wind speed (knots)

WIND SPEED (kts)

Temp (°C)	0-3	4-10	11-21	22-33	≥ 34
4.3	1	8	7	1	1
2.3	17	8	7	1	1
0.3	13	6	3	1	1
-2.3	1	+	0	0	0
-4.3	0	0	0	0	0
-6.3	+	0	0	+	+
-8.3	1	+	0	0	0
-10.3	0	0	0	0	0
-12.3	1	+	0	0	0
-14.3	1	0	0	0	0
-16.3	1	+	0	0	0

(1% of all observations reported temperature 2-3°C simultaneously with wind speed of 22-33 kts)

+ Indicates < 5% but > 0

Number of observations

Use of this table in determination of Potential Superstructure Icing is explained in the text

WIND SPEED (KTS) 1

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	0	+	0	0
30.31	+	1	2	0	0
28.29	2	28	35	2	0
26.27	2	12	12	1	0
24.25	+	2	1	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 2

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
30.31	+	1	1	+	
28.29	1	13	19	1	
26.27	2	21	32	2	
24.25	+	2	2	1	
22.23	0	+	+	0	
20.21	0	0	0	0	
18.19	0	0	0	0	
16.17	0	0	0	0	
14.15	0	0	0	0	
12.13	0	0	0	0	
10.11	0	0	0	0	

BLACK LINE Percent frequency of T.H index ≥ 24°C (75.2°F) (discomfort may be experienced due to heat)

BLUE LINE Minimum (1%) air temperature (°C) (1% of the temperatures were equal to or less than the given value)

RED LINE Maximum (99%) air temperature (°C) (1% of the temperatures were greater than the given value)

WIND SPEED (KTS) 6

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
34.35	0	+	+	0	0
32.33	+	+	0	0	0
30.31	+	1	+	0	0
28.29	4	13	4	+	0
26.27	10	36	11	+	0
24.25	2	10	5	0	0
22.23	+	1	1	0	0
20.21	0	+	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0

WIND SPEED (KTS) 7

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	0	
30.31	1	3	1	0	
28.29	2	12	13	1	
26.27	0	19	25	2	
24.25	+	8	12	+	
22.23	0	+	0	0	
20.21	0	0	0	0	
18.19	0	0	0	0	
16.17	0	0	0	0	
14.15	0	0	0	0	
12.13	0	0	0	0	

WIND SPEED (KTS) 11

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
36.37	+	1	0	0	0
34.35	2	1	0	0	0
32.33	3	6	1	0	0
30.31	6	12	3	0	0
28.29	12	26	10	1	0
26.27	2	10	4	+	+
24.25	0	2	+	+	0
22.23	0	0	0	0	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

WIND SPEED (KTS) 12

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	+	1	+	0	0
30.31	2	3	1	0	0
28.29	7	26	16	1	+
26.27	5	17	14	2	+
24.25	+	1	2	1	+
22.23	0	0	+	+	0
20.21	0	0	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 13

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
36.37	0	+	0	0	0
34.35	0	+	+	0	0
32.33	+	+	1	0	0
30.31	+	2	2	+	0
28.29	3	14	11	1	0
26.27	6	29	18	1	0
24.25	1	4	3	+	0
22.23	0	+	0	+	0
20.21	0	+	0	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0

WIND SPEED (KTS) 14

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	0	1	+	0	0
26.27	+	6	3	+	0
24.25	2	19	24	1	0
22.23	1	18	24	1	0
20.21	0	1	1	0	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 15

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	1	1	1	0	0
26.27	1	2	2	0	0
24.25	2	6	4	1	0
22.23	3	12	20	1	0
20.21	3	14	13	3	0
18.19	+	3	6	1	0
16.17	0	0	+	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 16

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	0	1	2	+	
24.25	1	4	1	0	
22.23	4	8	6	0	
20.21	2	24	17	0	
18.19	4	11	12	+	
16.17	0	1	1	0	
14.15	0	0	0	0	
12.13	0	0	0	0	
10.11	0	0	0	0	
8.9	0	0	0	0	
6.7	0	0	0	0	

WIND SPEED (KTS) 20

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
32.33	0	+	+	0	0
30.31	+	+	+	0	0
28.29	1	3	1	+	0
26.27	3	12	8	+	0
24.25	6	24	16	2	+
22.23	2	9	11	1	0
20.21	+	+	1	+	0
18.19	0	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	0	0	0
12.13	0	0	0	0	0

WIND SPEED (KTS) 21

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.29	1	1	0	0	0
26.27	1	1	0	0	0
24.25	1	14	8	0	0
22.23	5	22	18	3	0
20.21	4	12	10	1	0
18.19	1	0	0	0	0
16.17	0	0	0	0	0
14.15	0	0	1	0	0
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0

WIND SPEED (KTS) 22

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	+	0	+	0	0
24.25	1	+	+	0	0
22.23	1	2	2	0	0
20.21	3	7	8	1	0
18.19	5	14	13	1	+
16.17	3	15	16	1	0
14.15	+	2	1	0	0
12.13	0	+	+	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

WIND SPEED (KTS) 23

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	0	+	+	0	0
24.25	+	1	+	0	0
22.23	1	9	9	+	+
20.21	2	9	11	1	+
18.19	2	14	17	5	+
16.17	1	10	10	4	1
14.15	+	1	3	1	+
12.13	0	0	+	+	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

WIND SPEED (KTS) 24

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
28.27	+	+	0	0	0
24.25	+	1	1	0	0
22.23	3	6	5	+	+
20.21	3	19	16	3	+
18.19	2	12	13	3	+
16.17	1	3	3	1	+
14.15	+	1	3	1	+
12.13	0	0	0	0	0
10.11	0	0	0	0	0
8.9	0	0	0	0	0
6.7	0	0	0	0	0

WIND SPEED (KTS) 25

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
20.21	0	+	0	0	0
18.19	1	2	3	1	+
16.17	1	8	17	3	+
14.15	1	15	19	6	+
12.13	+	4	11	4	1
10.11	0	+	+	+	1
8.9	0	0	0	0	0
6.7	0	0	0	0	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

WIND SPEED (KTS) 29

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
22.23	0	+	+	0	0
20.21	0	1	1	+	0
18.19	1	8	9	3	+
16.17	2	13	20	4	1
14.15	1	8	8	3	1
12.13	1	3	5	3	1
10.11	0	+	1	1	+
8.9	0	0	+	+	0
6.7	0	0	0	+	0
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0

WIND SPEED (KTS) 30

TEMP (°C)	0-3	4-10	11-21	22-33	≥ 34
16.17	1	1	+	+	0
14.15	+	1	1	+	0
12.13	2	6	9	4	2
10.11	1	8	21	8	2
8.9	1	2	14	8	5
6.7	0	1	2	2	+
4.5	0	0	0	0	0
2.3	0	0	0	0	0
0.1	0	0	0	0	0
-2.1	0	0	0	0	0
-4.3	0	0	0	0	0

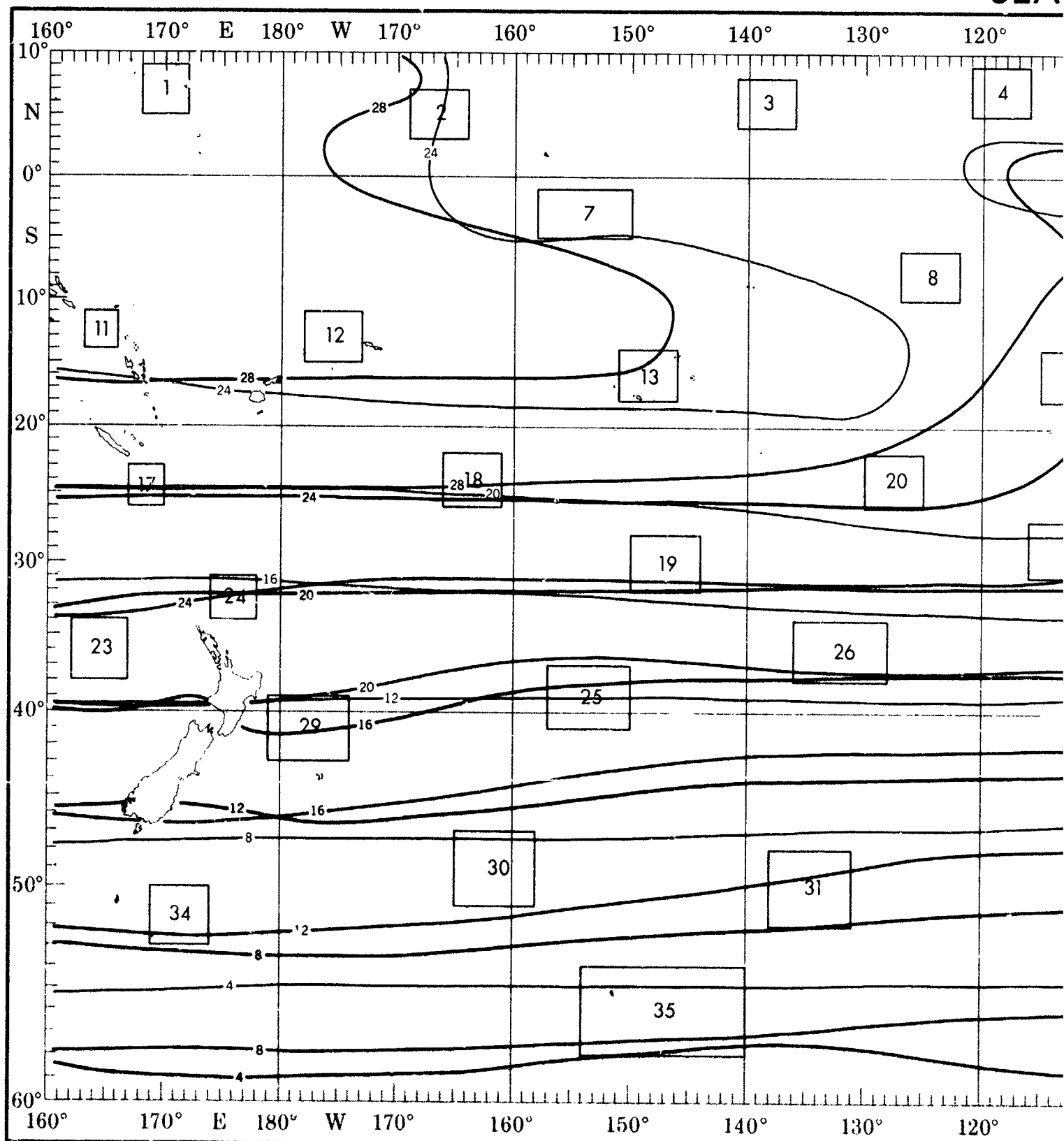
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(given value)

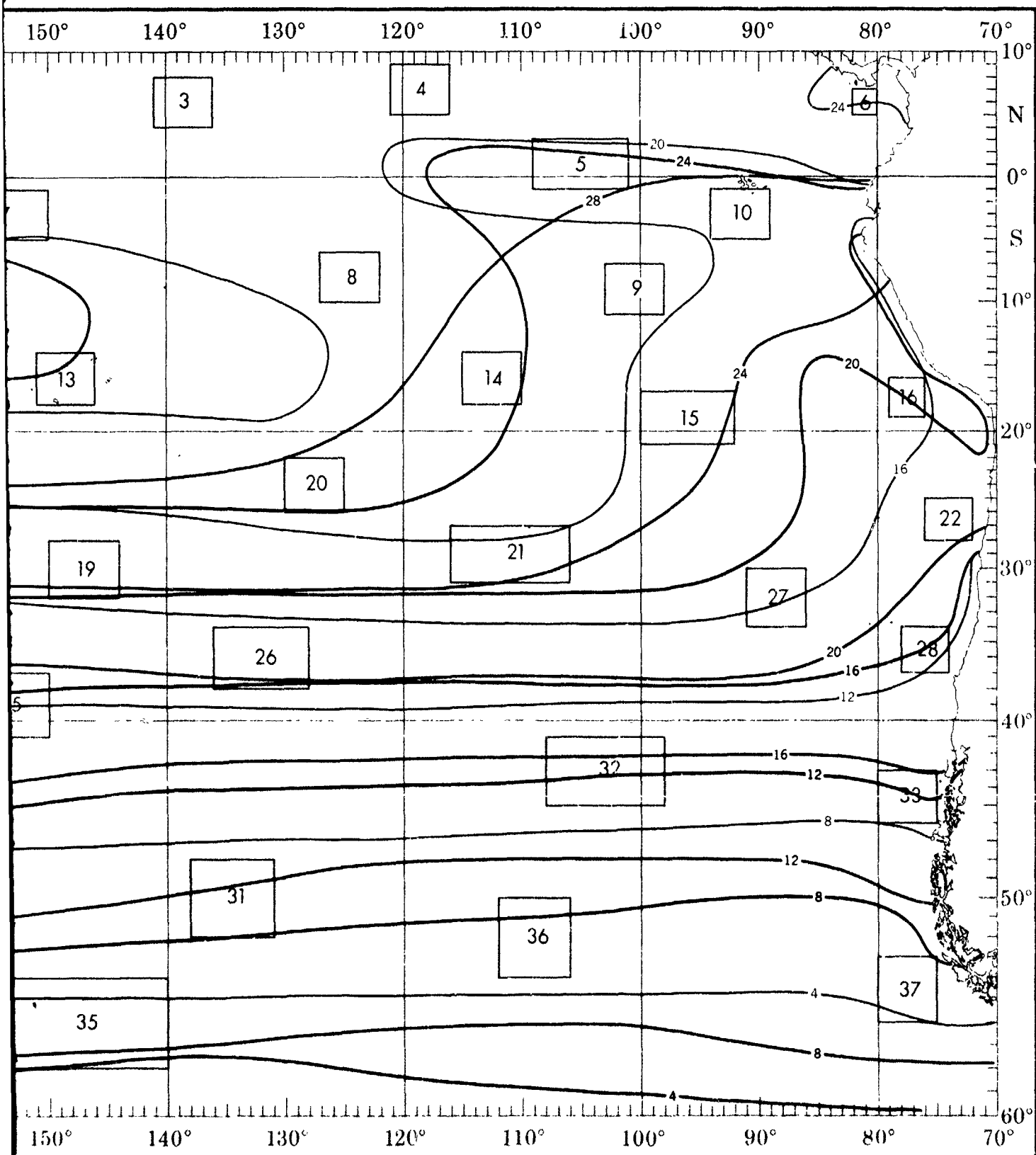
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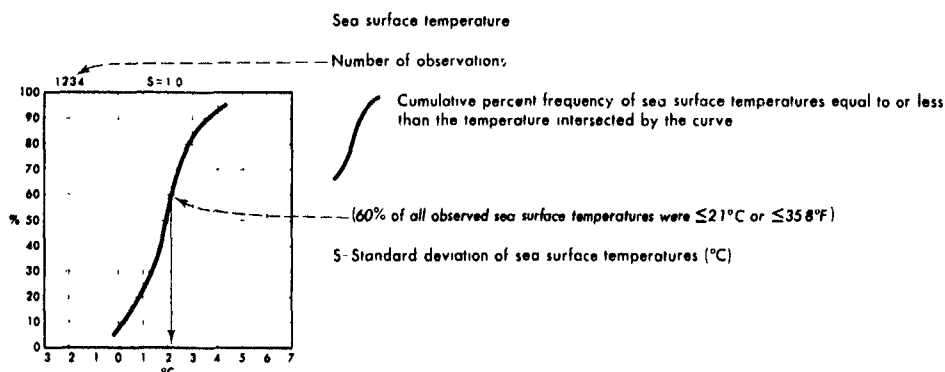
SEA



SEA SURFACE TEMPERATURE



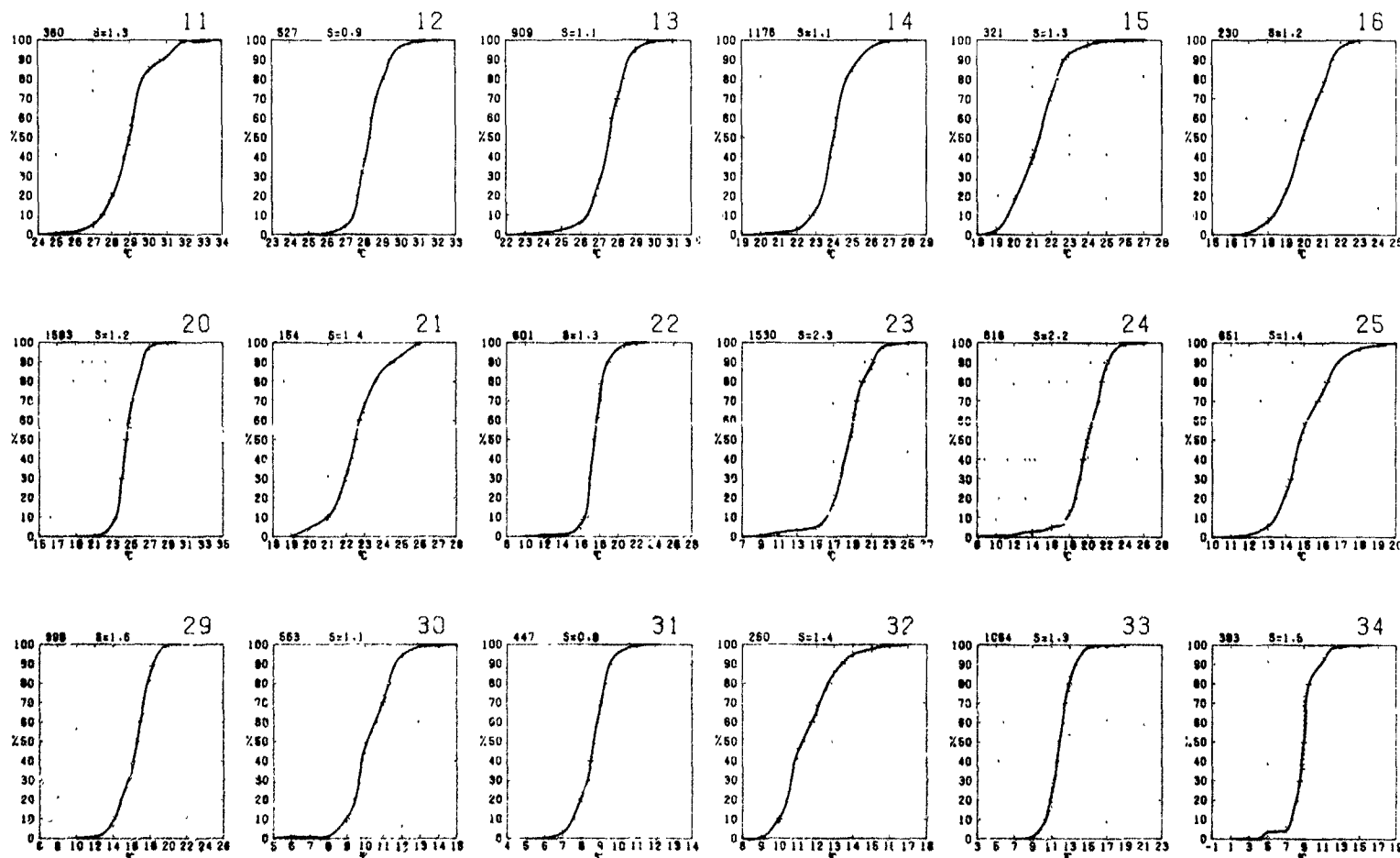
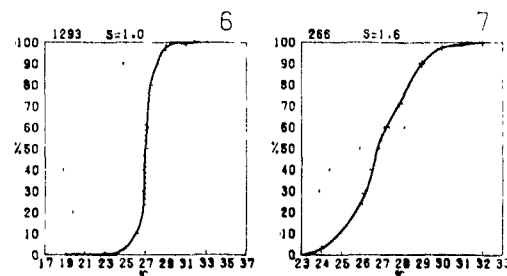
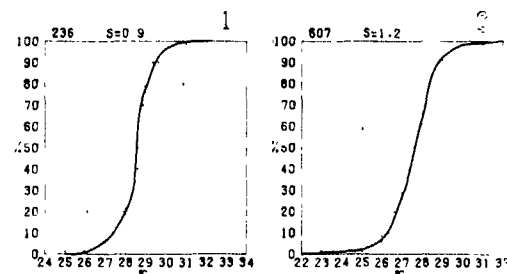
SEA SURFACE TEMPERATURE



BLACK LINE Mean sea surface temperature ($^{\circ}\text{C}$)

BLUE LINE Minimum (1%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were equal to or less than the given value)

RED LINE Maximum (99%) sea surface temperature ($^{\circ}\text{C}$) (1% of the temperatures were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted when

TEMPERATURE

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ice temperatures equal to or less
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21°C or ≤35.8°F)

°C)

equal to or less than the given

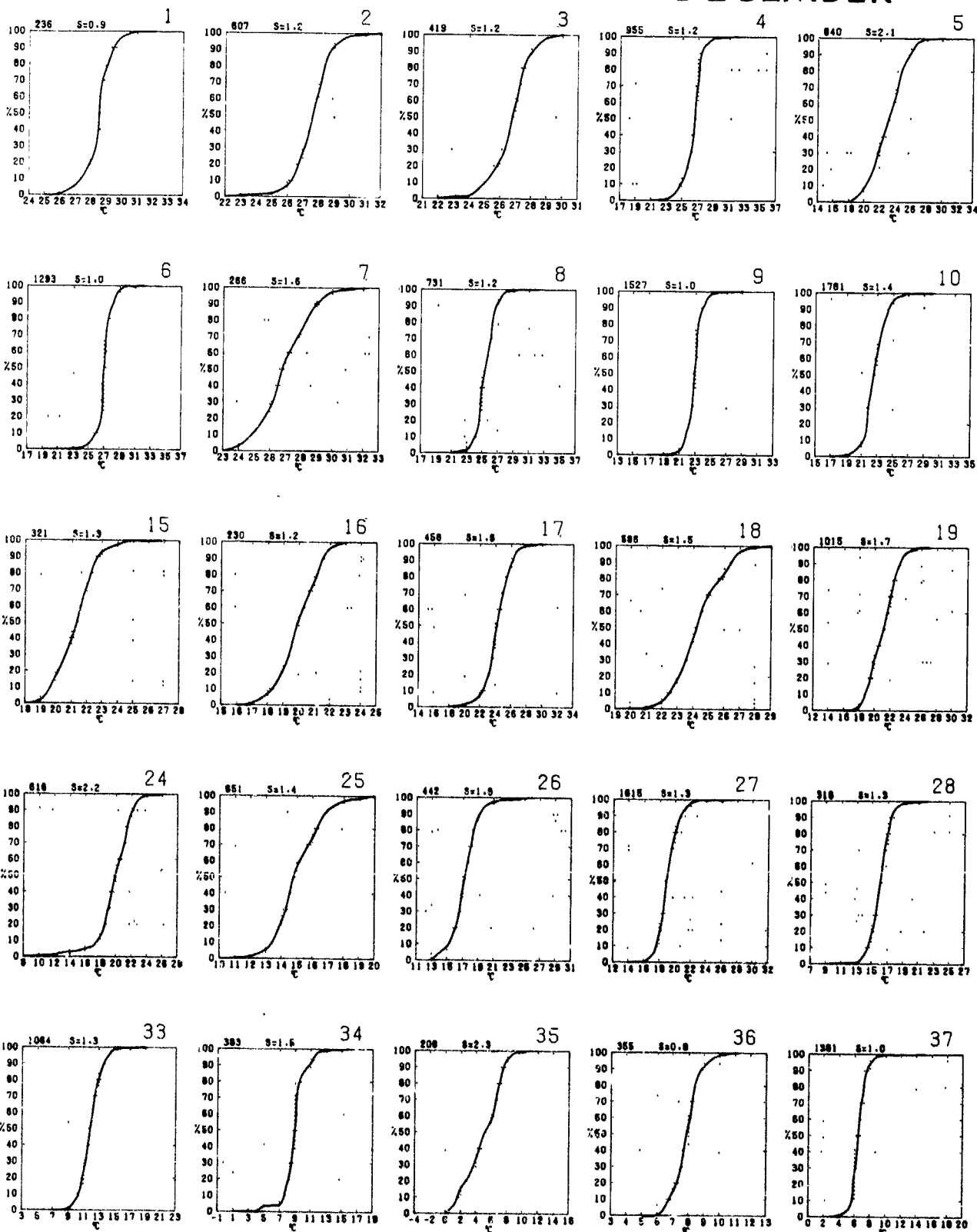
greater than the given value)

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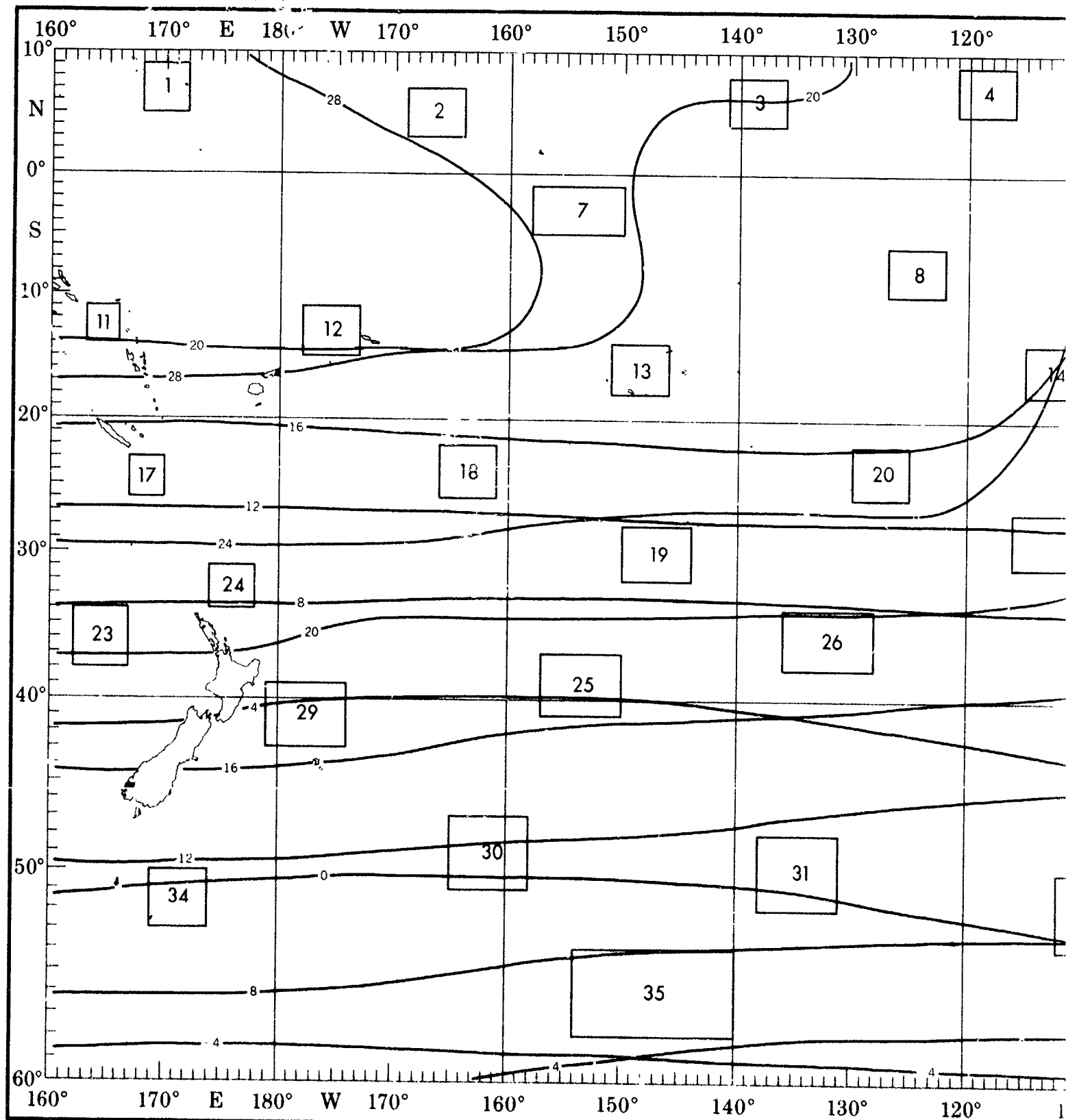
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at the objective compilation of available data for specified areas without regard to suspected biases.
lyses (opposite page) are based on all available data subjectively adjusted where bias was evident.



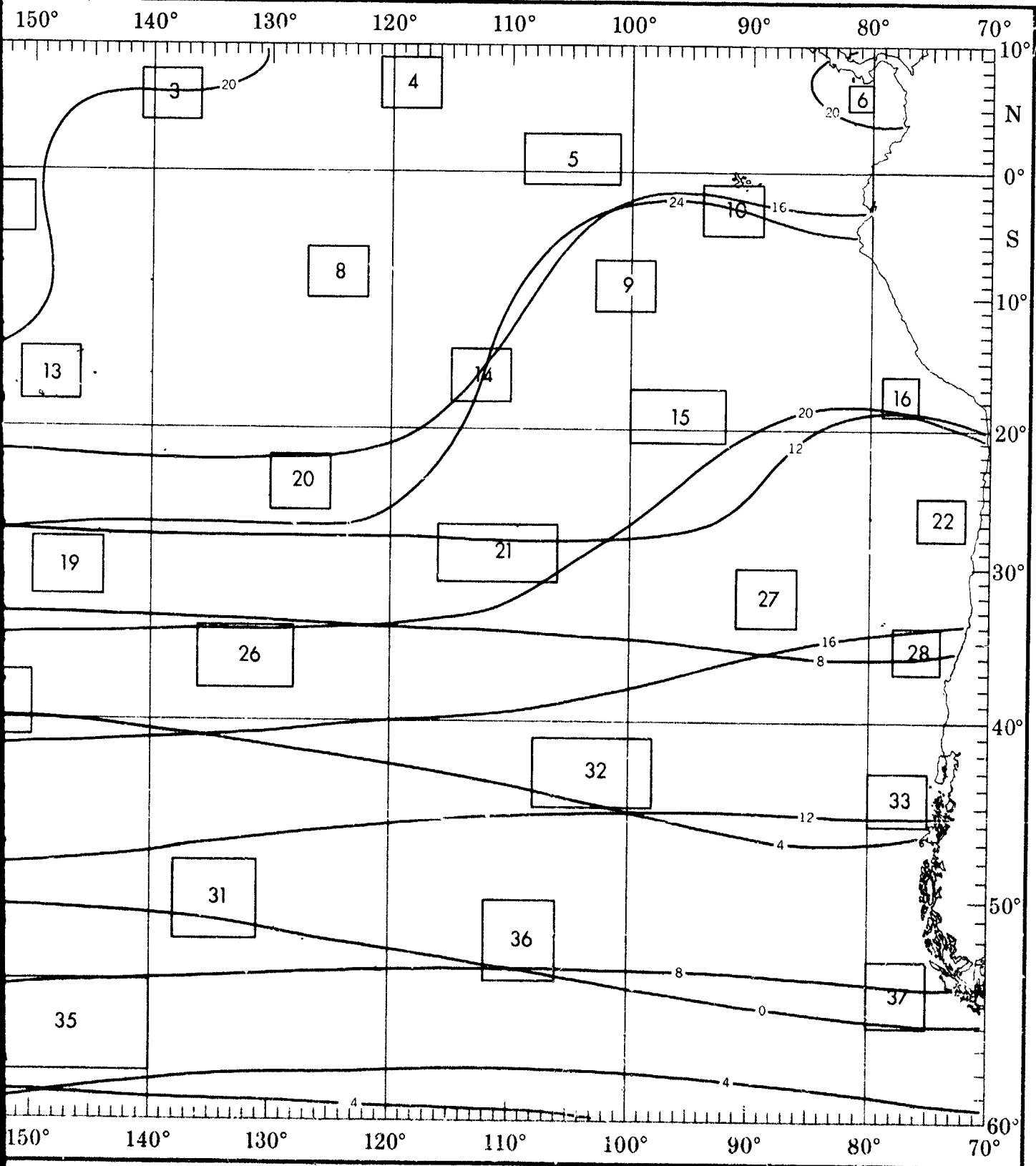
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HUMIDITY



WET BULB AND RELATIVE HUMIDITY

Wet bulb - Relative humidity

Cumulative percent frequency of wet-bulb temperatures equal to or less than the temperature intersected by the curve (top scale).

Wet bulb (°C)

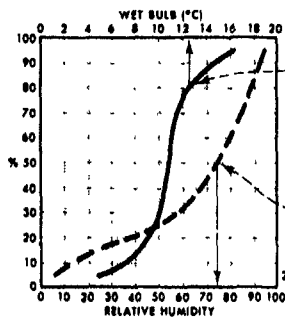
(80% of all observed wet-bulb temperatures were $\leq 12.5^\circ\text{C}$ or 54.5°F)

Cumulative percent frequency of relative humidities equal to or less than the humidity intersected by the curve (bottom scale).

Relative humidity (%)

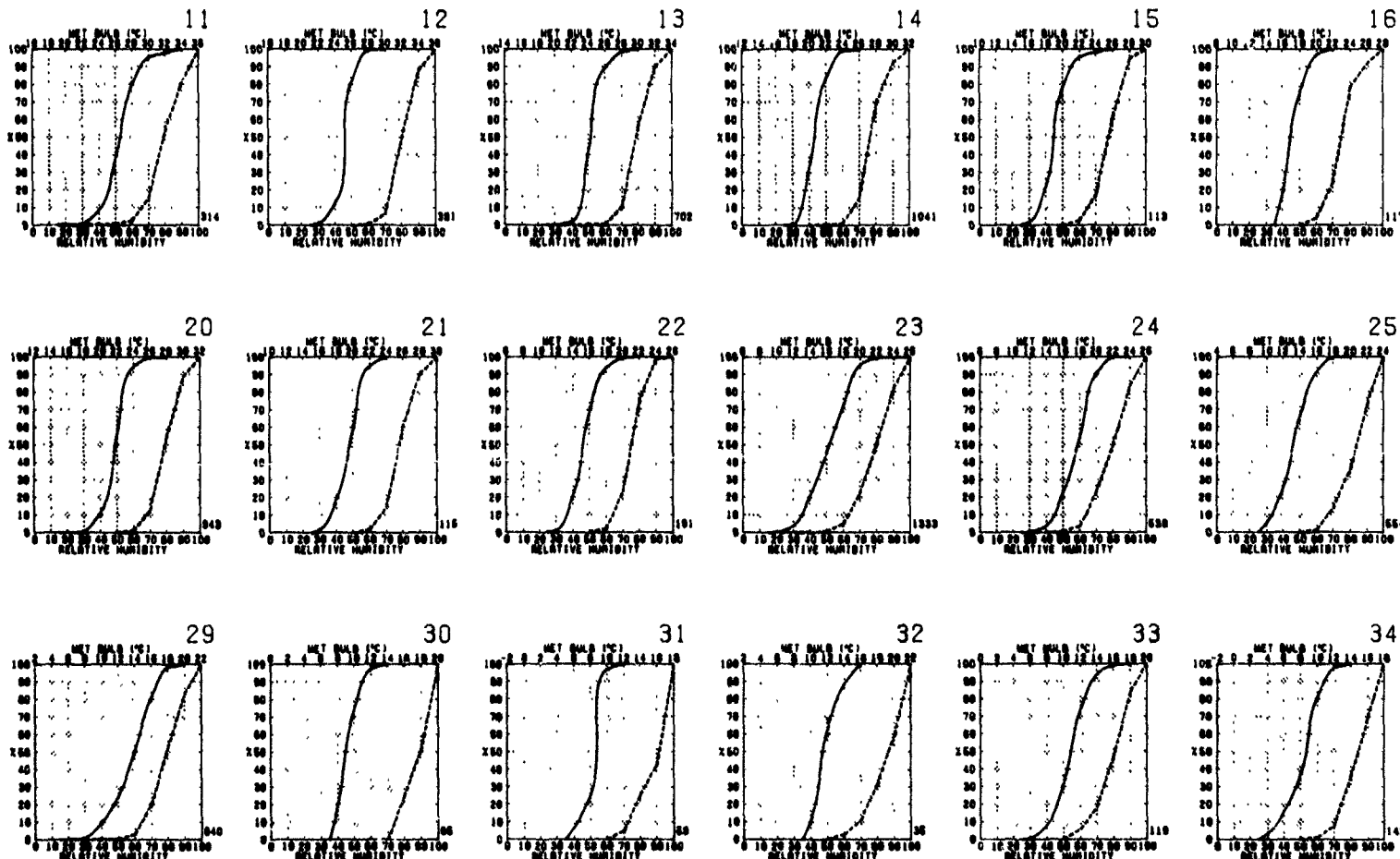
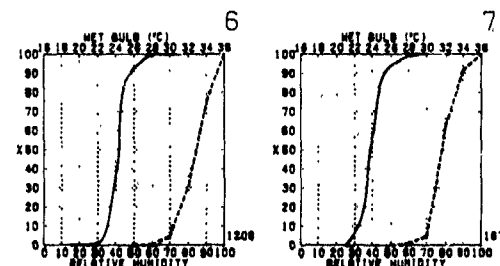
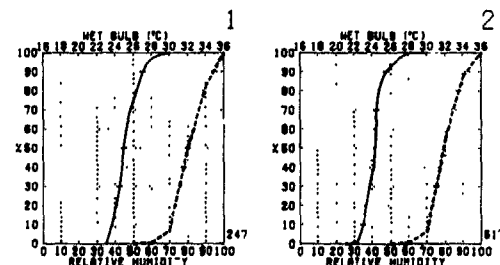
(50% of all observed relative humidities were $\leq 74\%$)

Number of observations



BLUE LINE Minimum (1%) dew point temperature (°C) (1% of the computed values were equal to or less than the given value)

RED LINE Maximum (99%) dew-point temperature (°C) (1% of the computed values were greater than the given value)



Graphs represent the objective compilation of available data for specified areas without regard. The isopleth analyses (opposite page) are based on all available data subjectively adjusted when

HUMIDITY

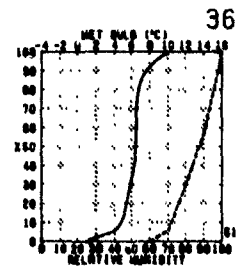
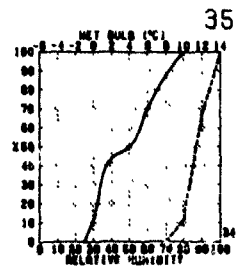
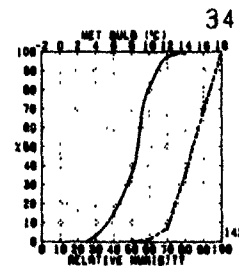
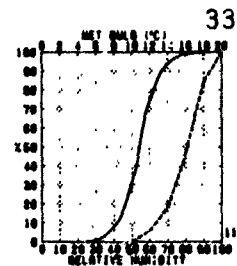
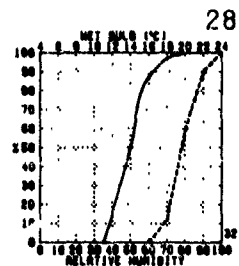
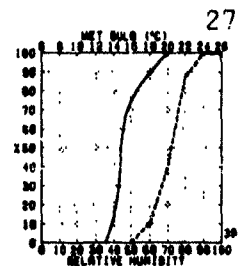
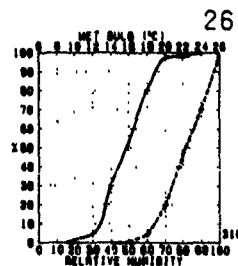
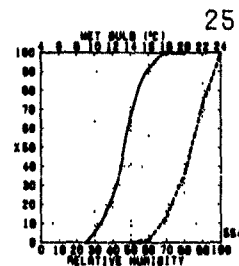
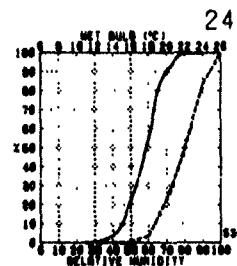
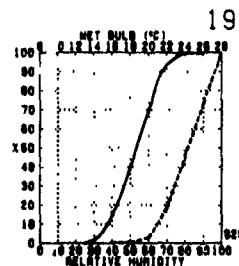
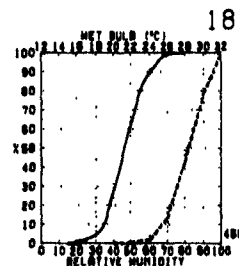
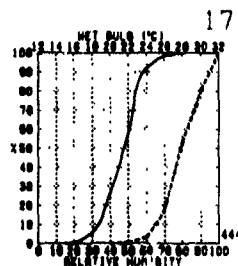
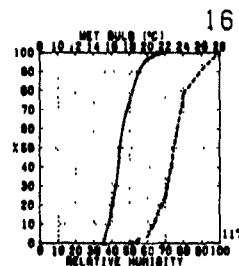
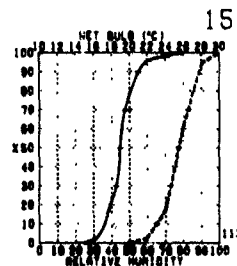
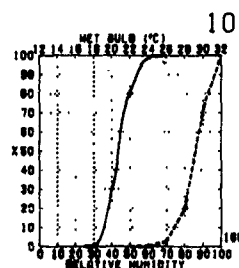
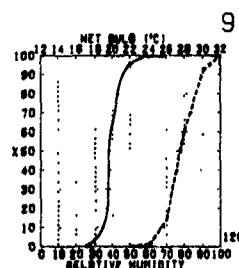
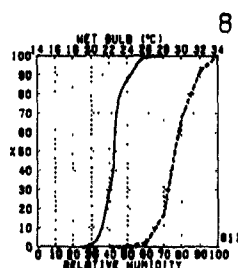
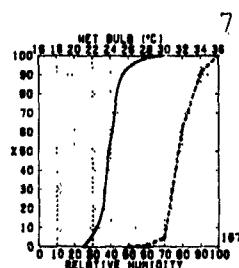
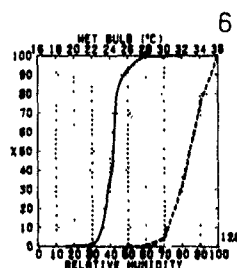
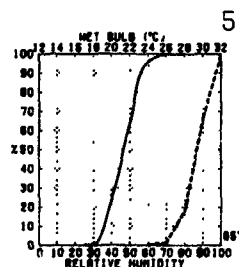
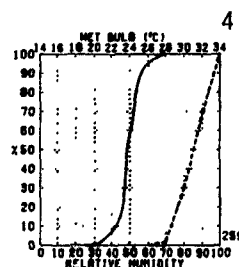
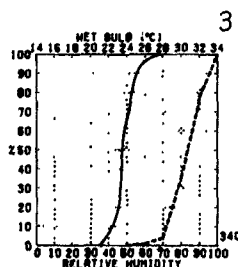
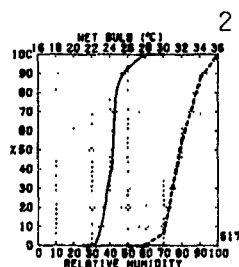
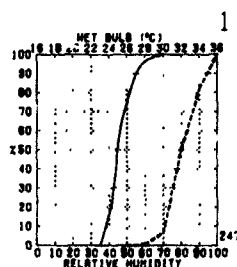
DECEMBER

less than the

than the humidity

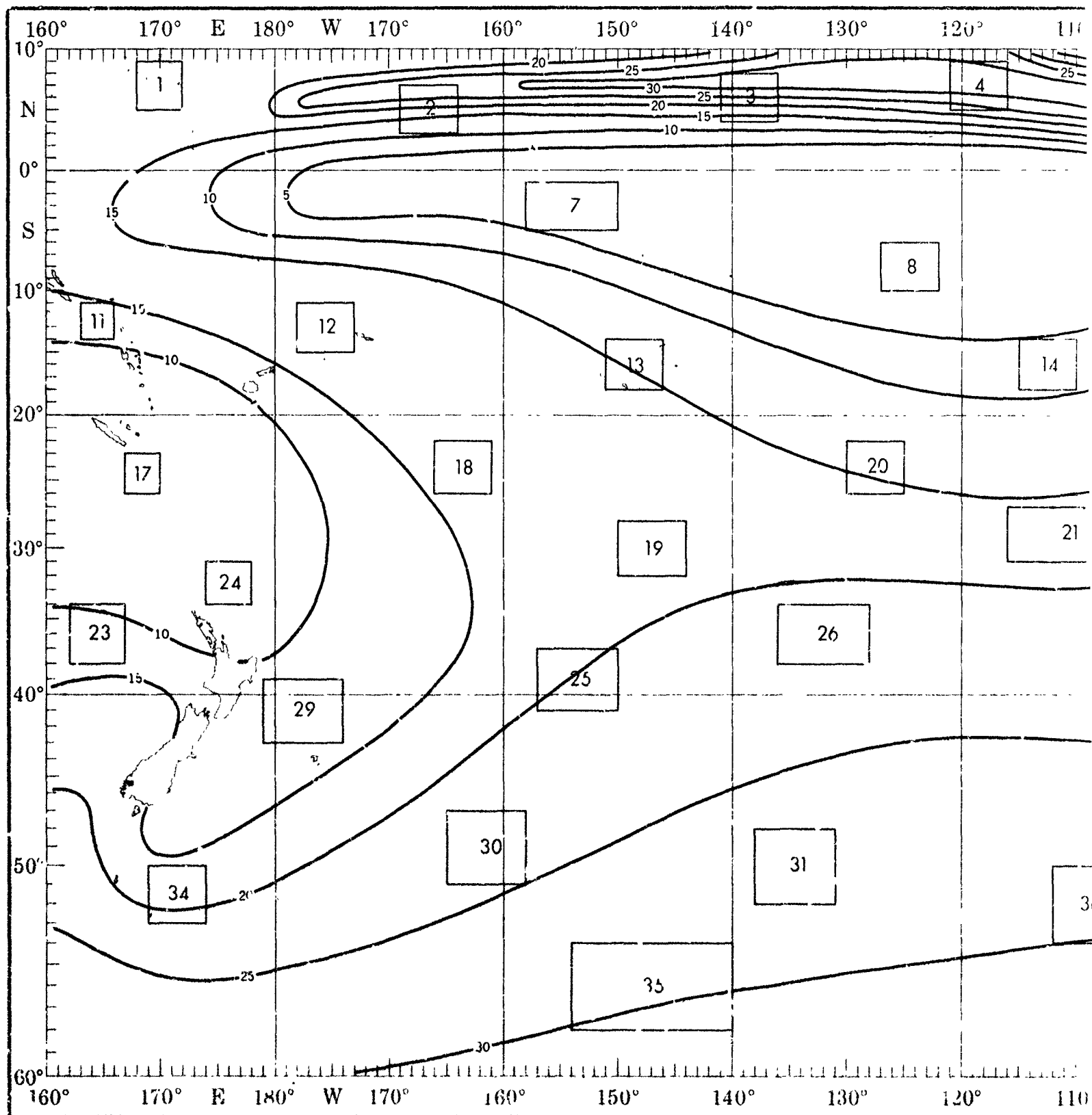
than the given

the given value)

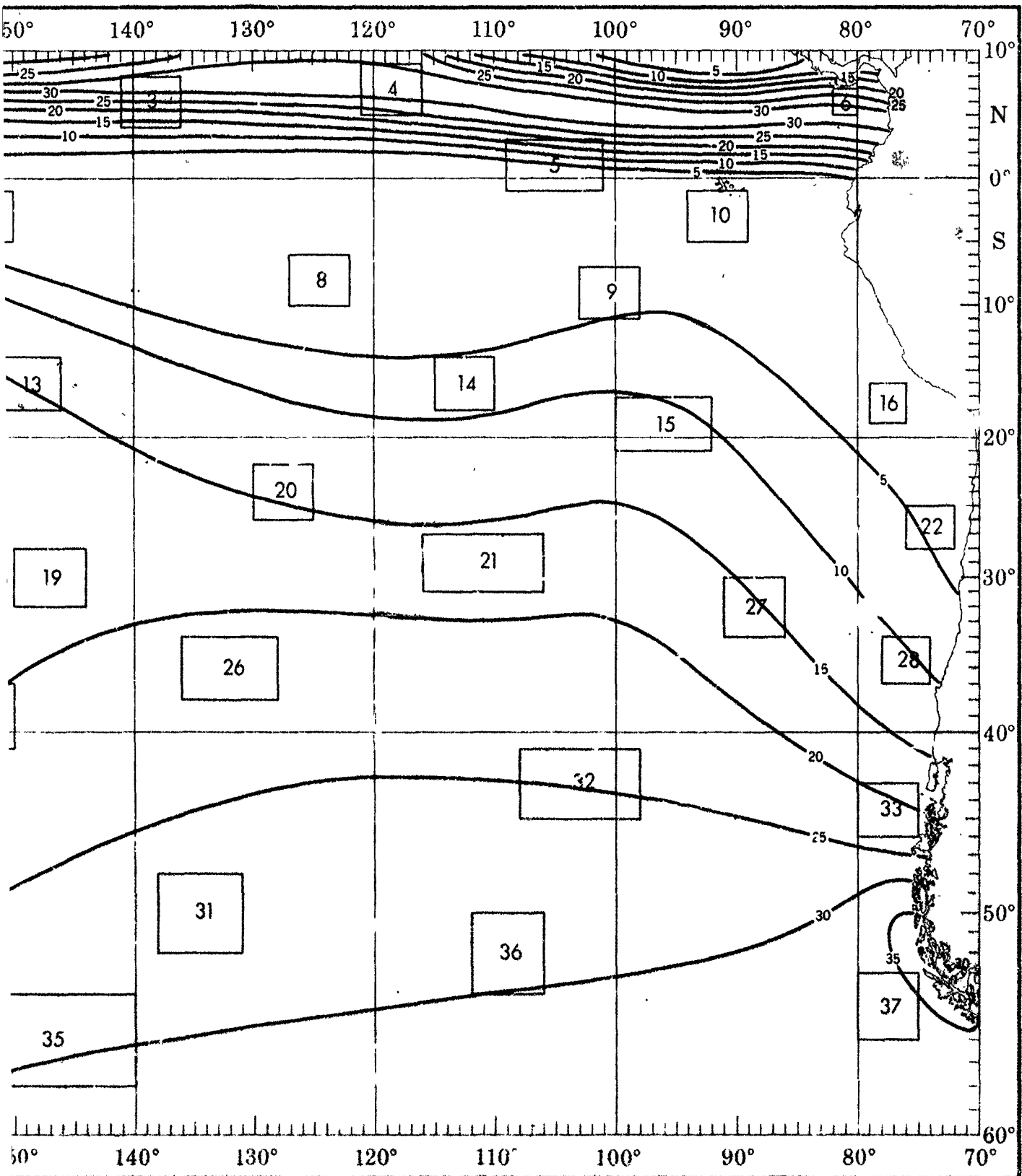


Active compilation of available data for specified areas without regard to suspected biases.
 (posite page) are based on all available data subjectively adjusted where bias was evident.

DECEMBER



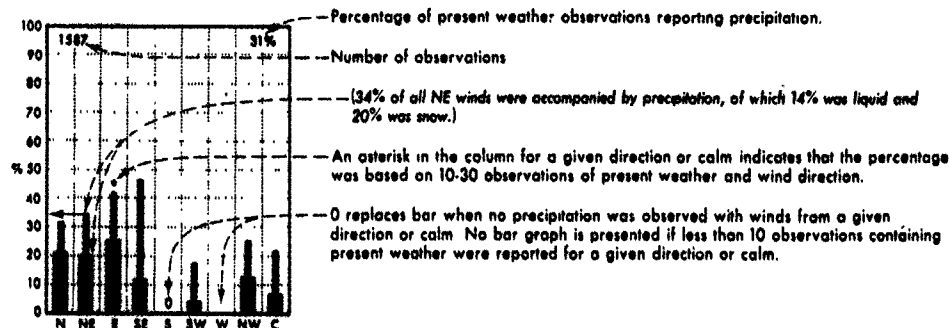
PRECIPITATION



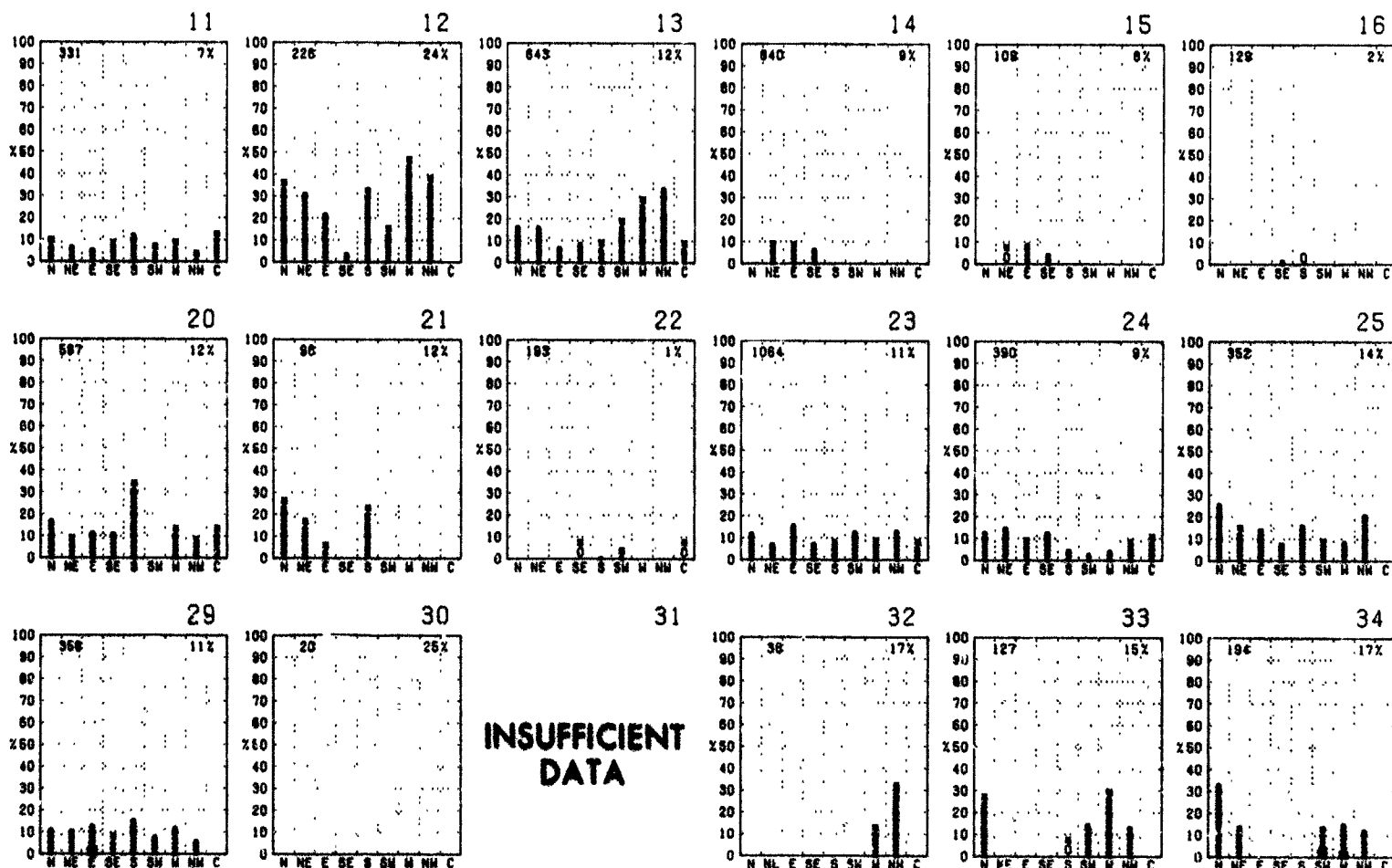
PRECIPITATION

% Pcpn.  % Liquid
% Snow

Percent frequency of surface wind observations from each direction and calm that were accompanied by precipitation, subdivided into liquid type (including freezing rain and freezing drizzle) and snow.



RED LINE - Percent frequency of observations reporting precipitation



Graphs represent the objective compilation of available data for specified areas without regard to the isopleth analyses (opposite page) are based on all available data subjectively adjusted where

DECEMBER

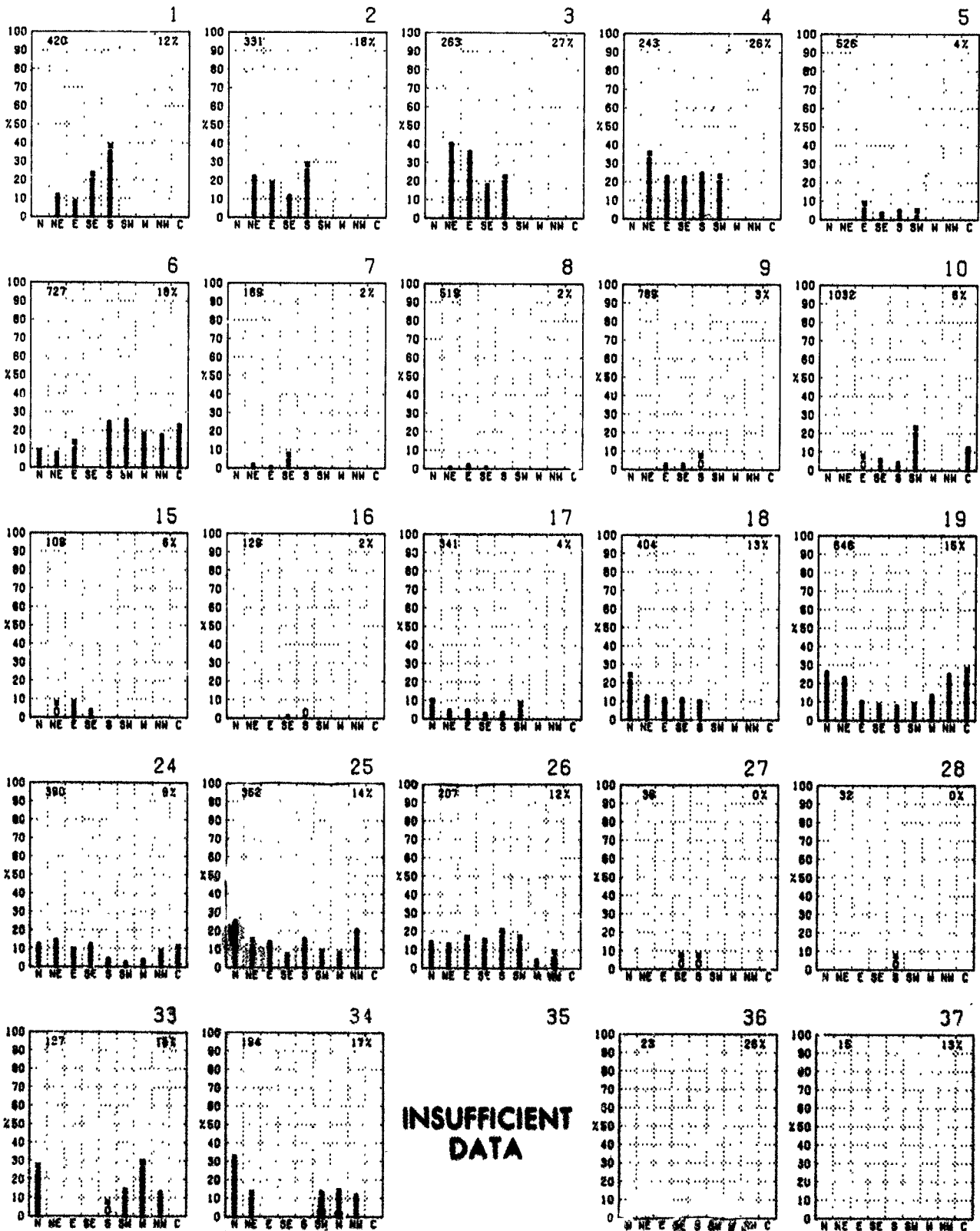
and calm that were
freezing rain and freezing

precipitation

with 14% was liquid and

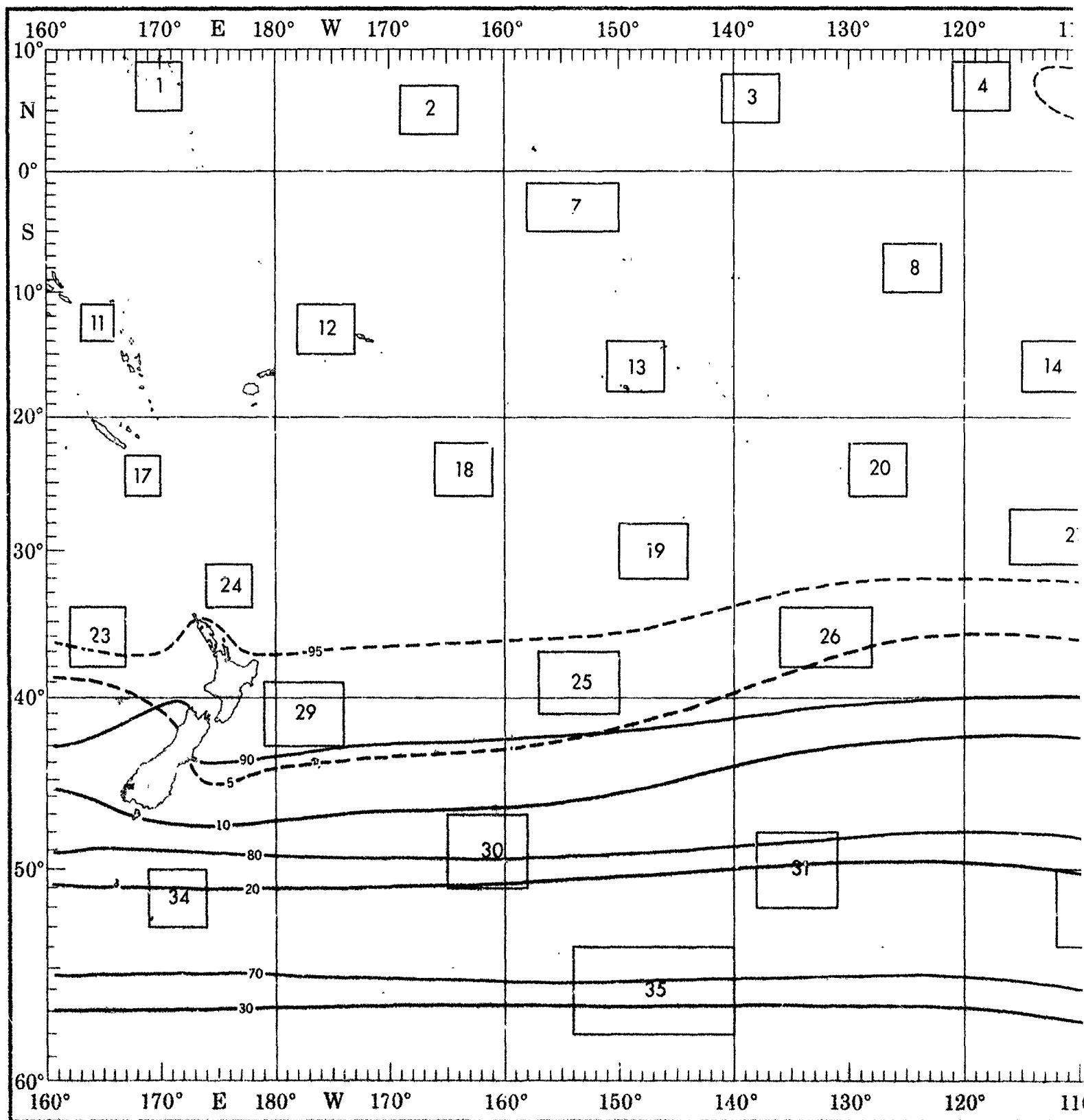
states that the percentage
and direction.

ends from a given
observations containing

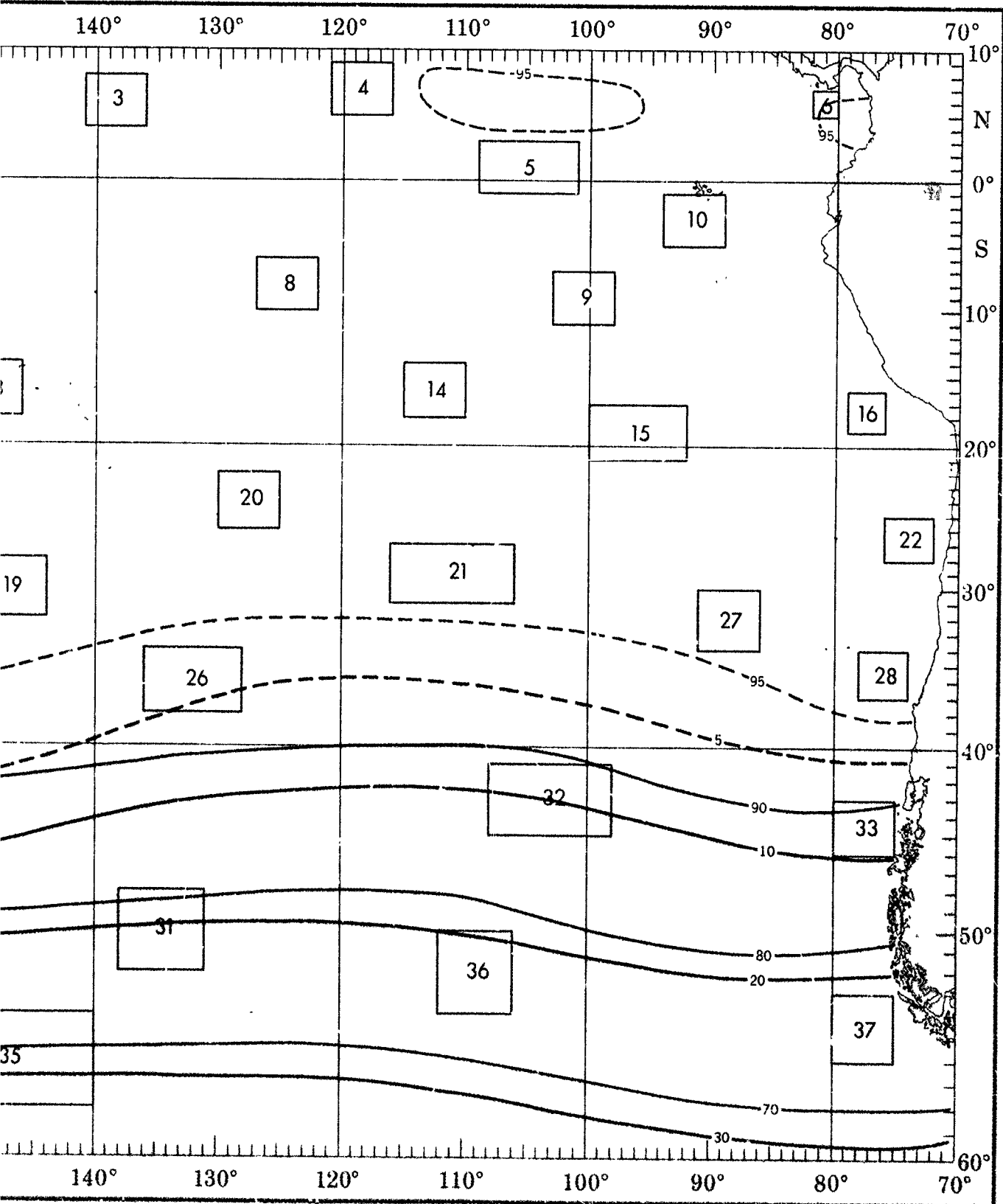


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

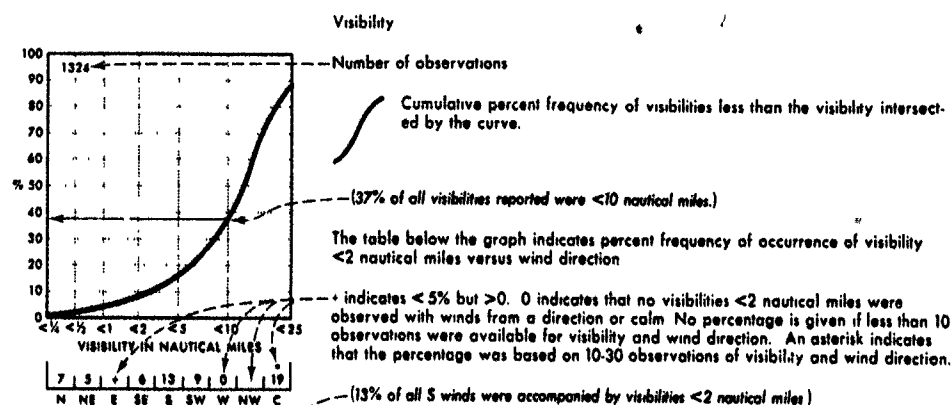
DECEMBER



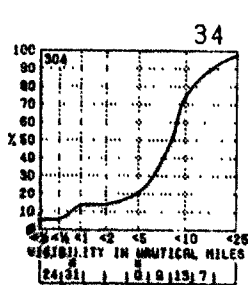
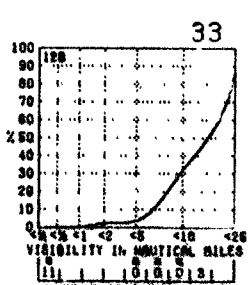
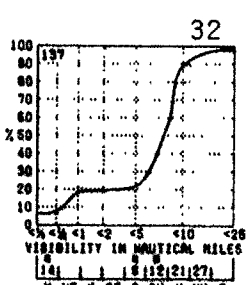
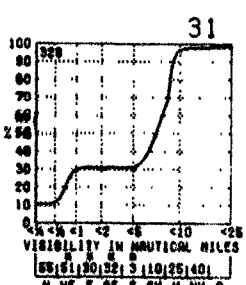
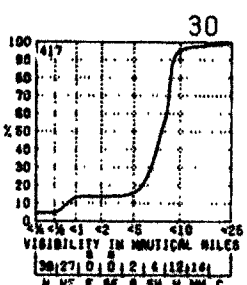
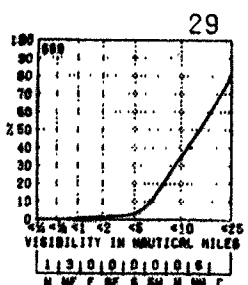
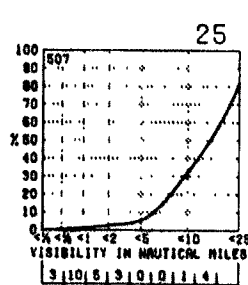
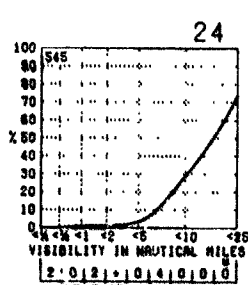
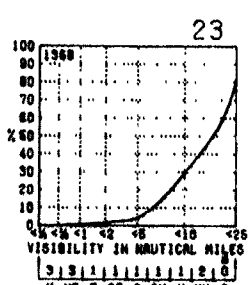
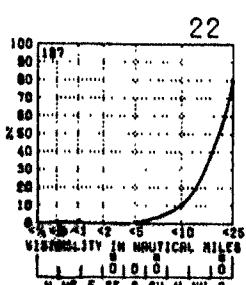
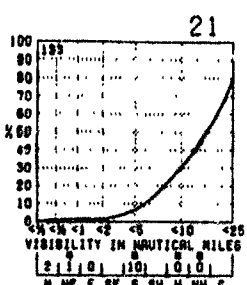
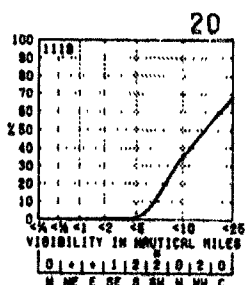
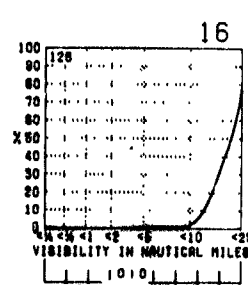
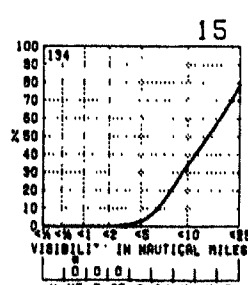
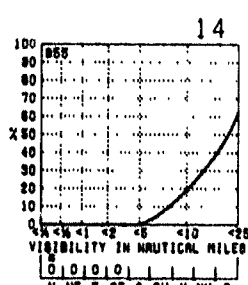
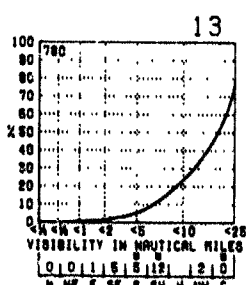
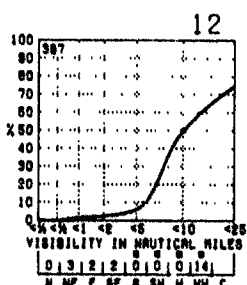
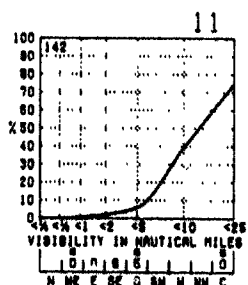
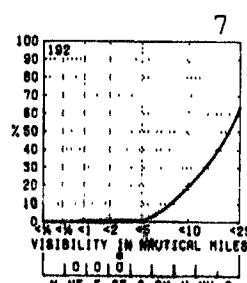
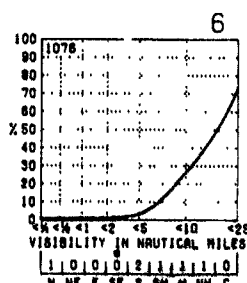
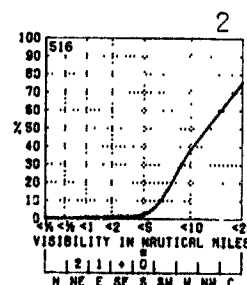
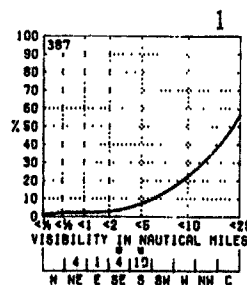
VISIBILITY



VISIBILITY

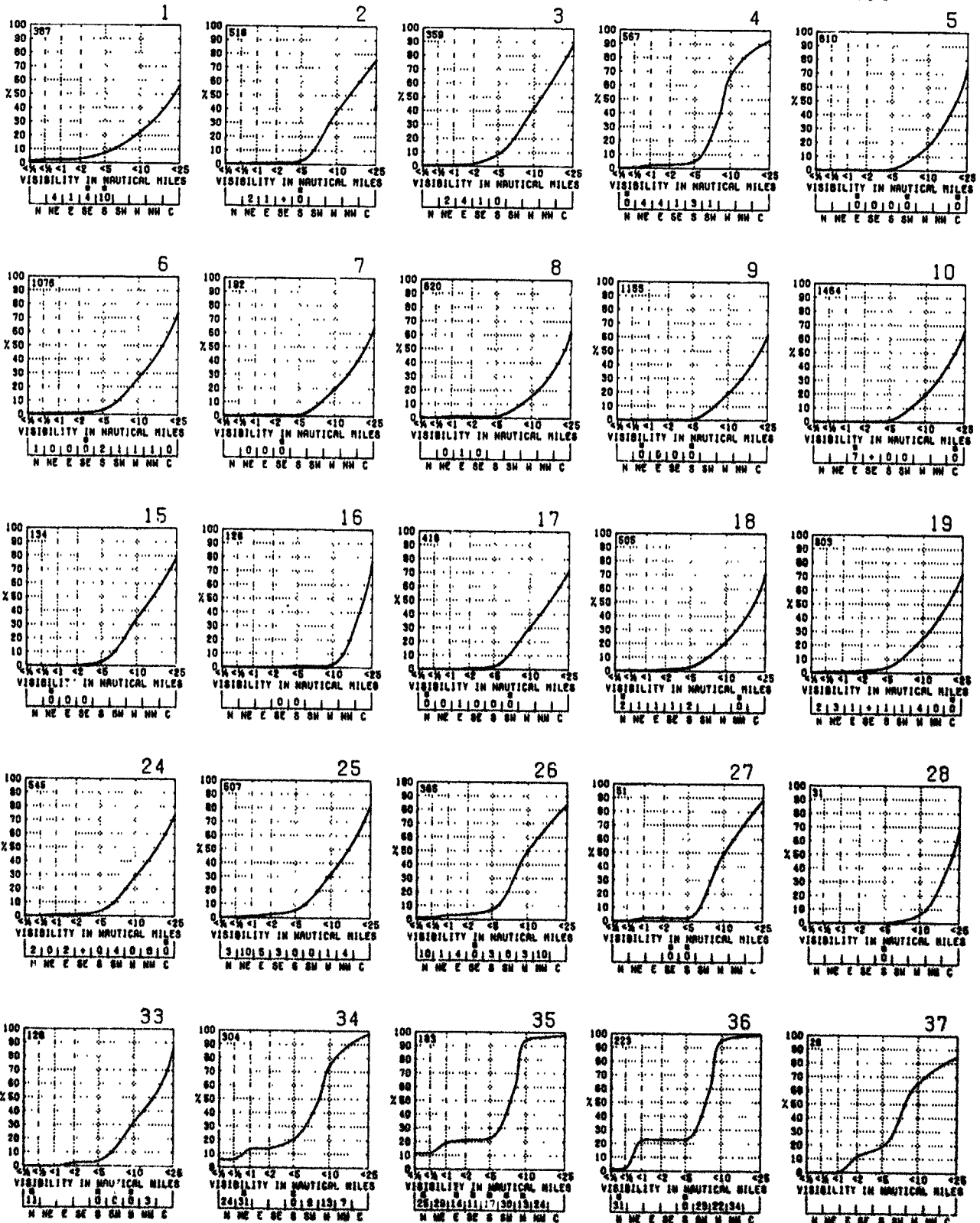


BLUE LINE - Percent frequency of visibilities ≥ 5 nautical miles
RED LINE - Percent frequency of visibilities <2 nautical miles



Graphs represent the objective compilation of available data for specified areas without regard to su
The isopleth analyses (opposite page) are based on all available data subjectively adjusted where bic

DECEMBER



less than the visibility intersect.

of occurrence of visibility

<2 nautical miles were
percentage is given if less than 10
direction. An asterisk indicates
of visibility and wind direction

(nautical miles)

B

<25
LES
0
C

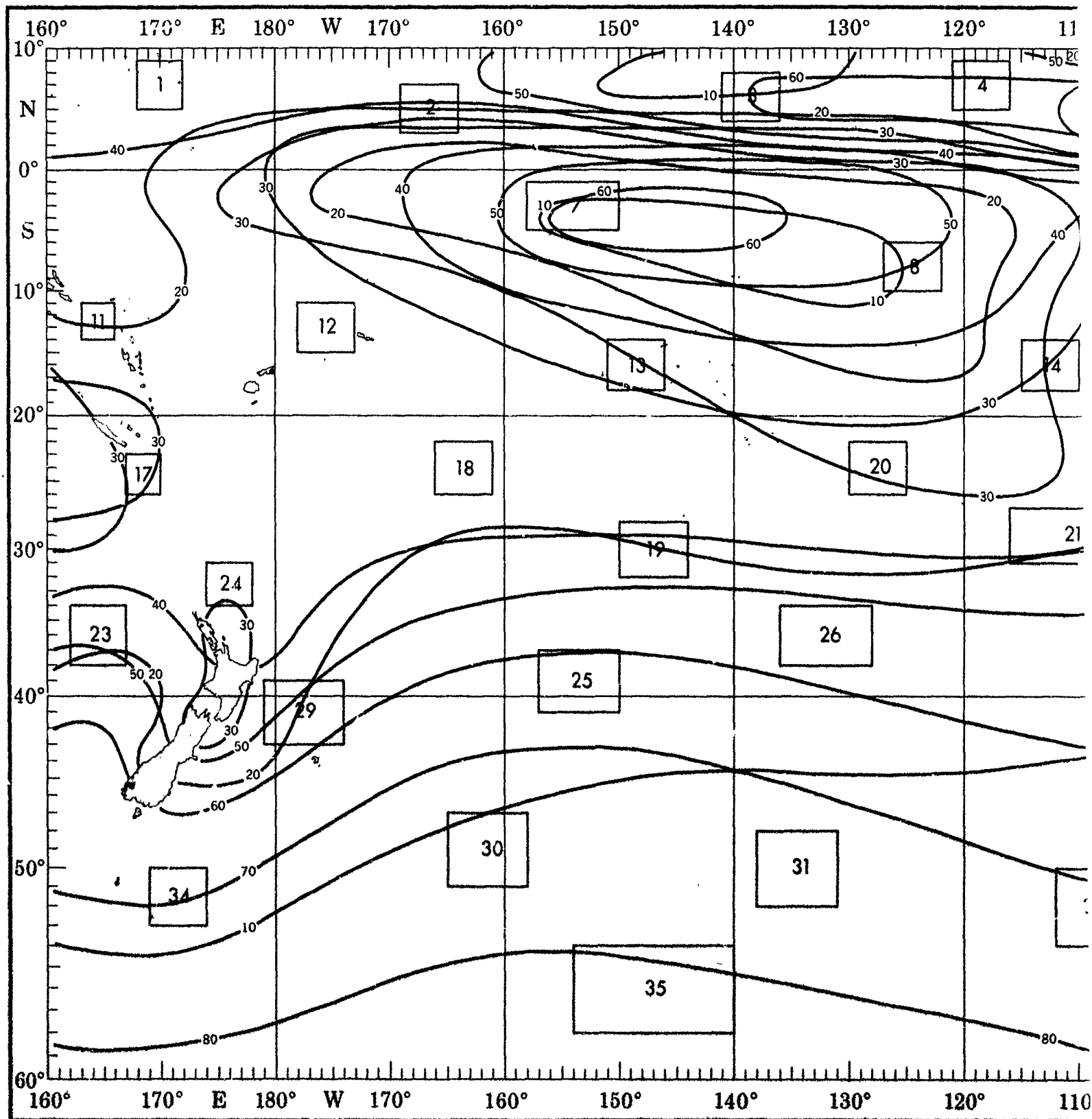
2

<25
LES
0
C

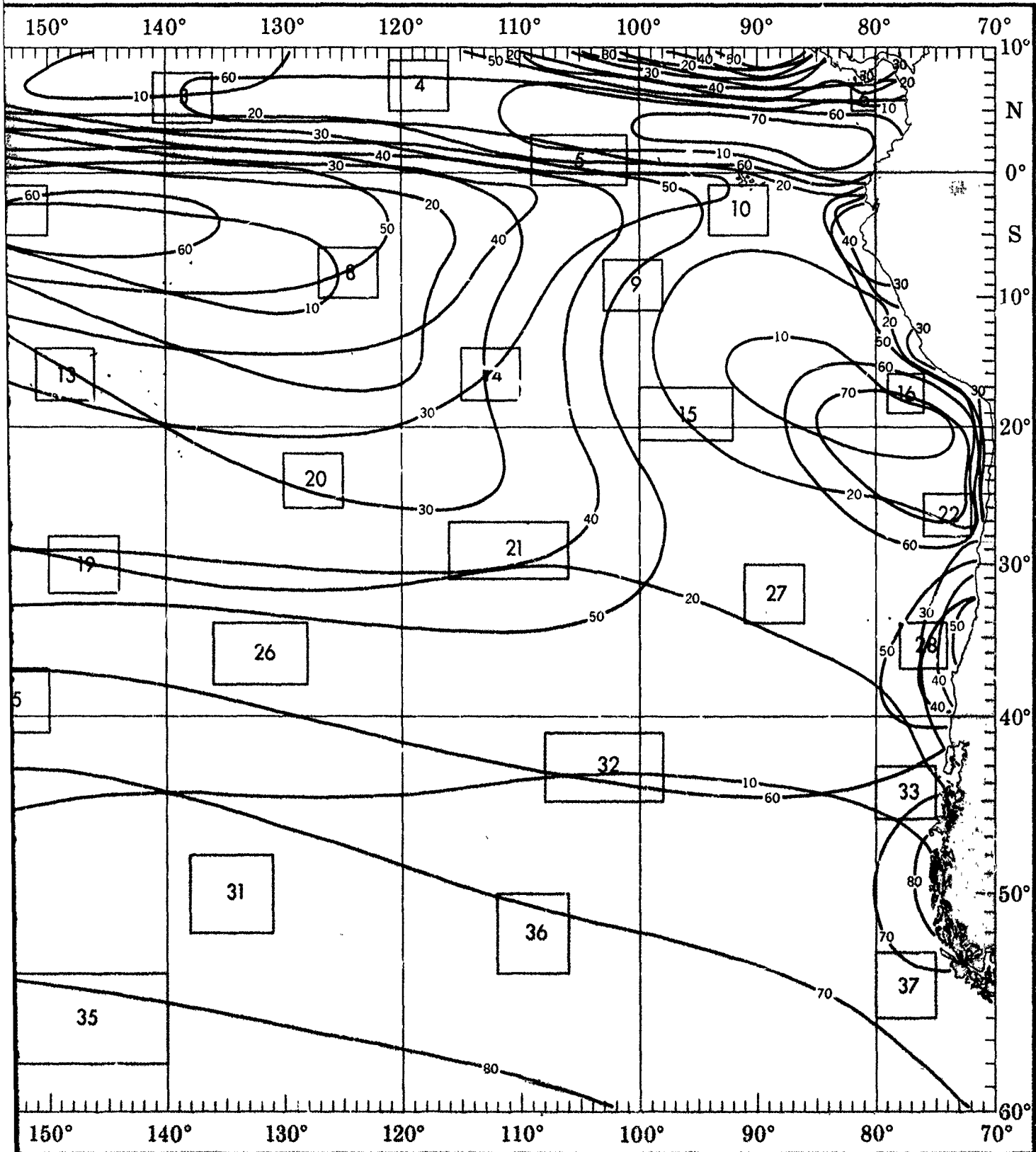
3

the objective compilation of available data for specified areas without regard to suspected biases.
yses (opposite page) are based on all available data subjectively adjusted where bias was evident.

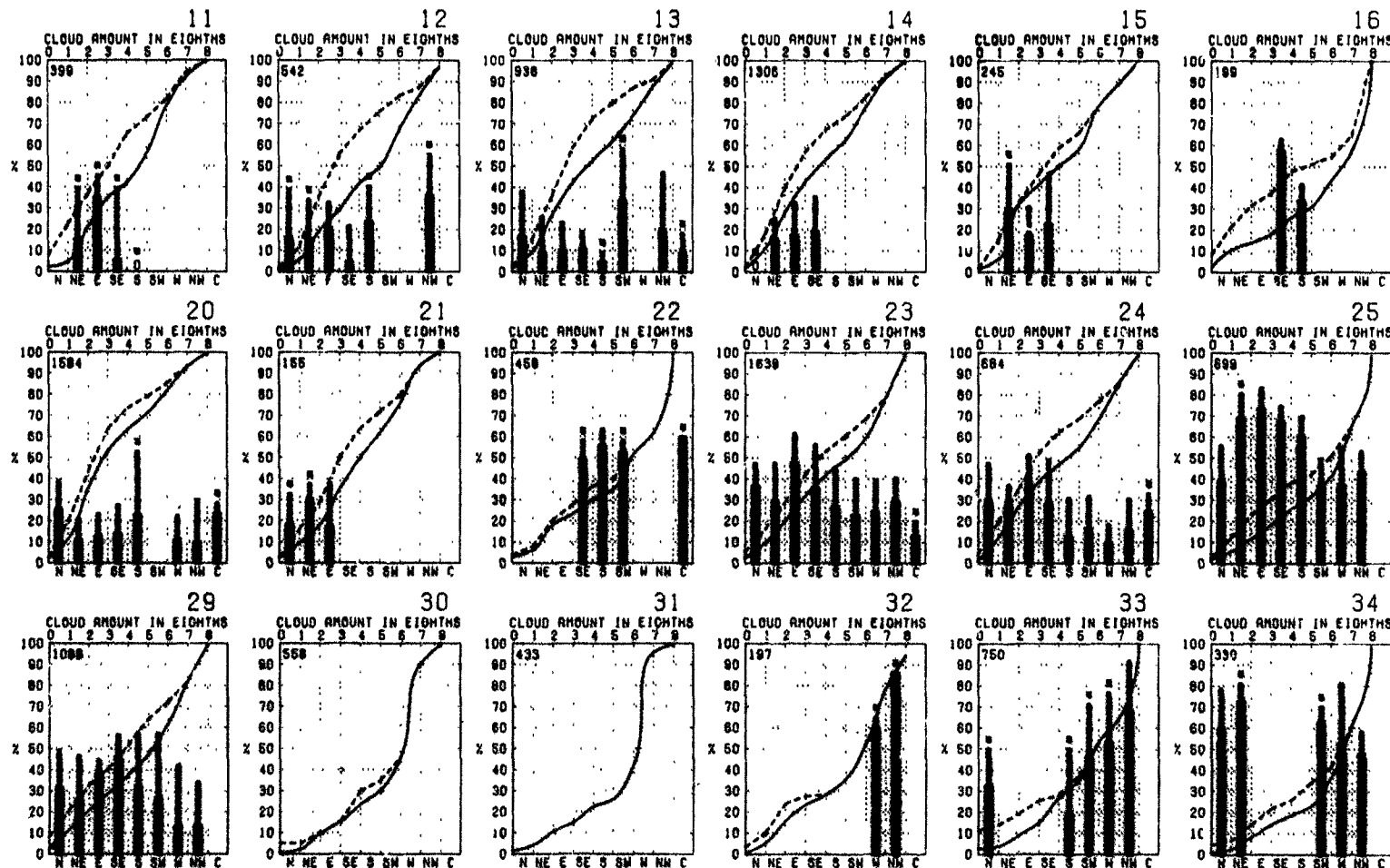
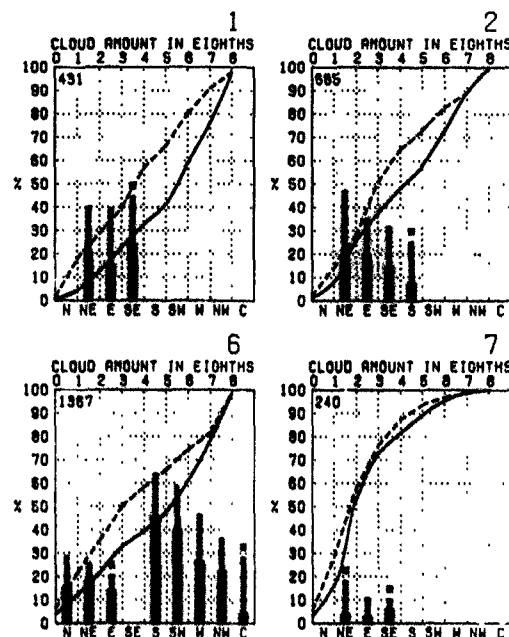
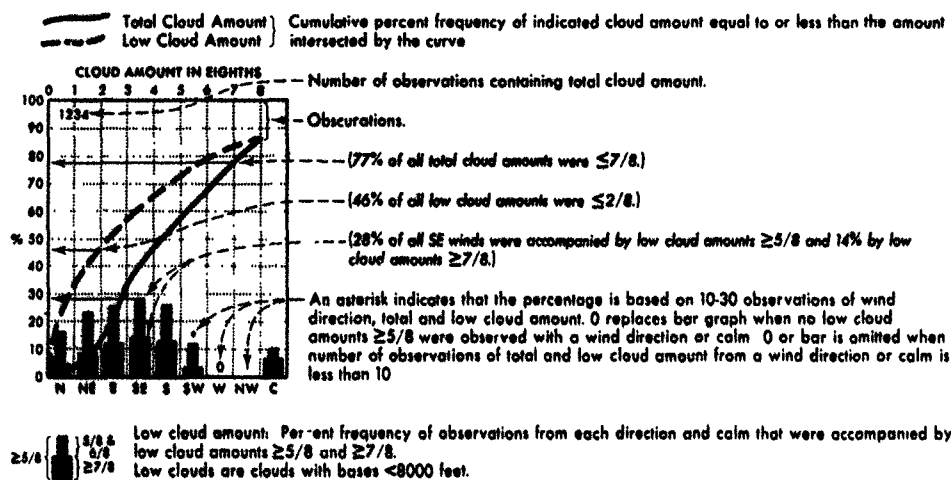
DECEMBER



CLOUD COVER



CLOUD COVER



Graphs represent the objective compilation of available data for specified areas without regard to
 The isopleth analyses (opposite page) are based on all available data subjectively adjusted where

DECEMBER

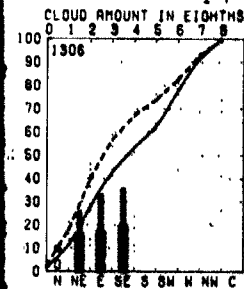
or less than the amount

3/8 and 14% by low

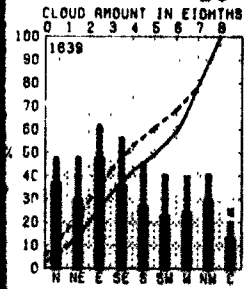
ervations of wind
en no low cloud
or bar is omitted when
wind direction or calm is

ot were accompanied by

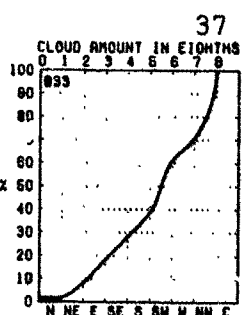
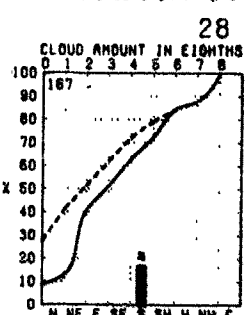
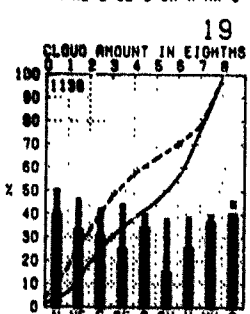
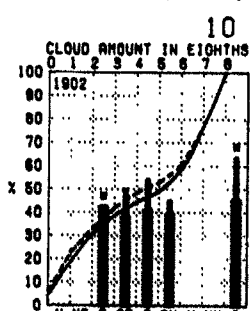
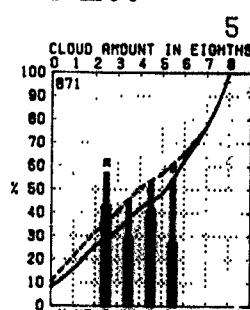
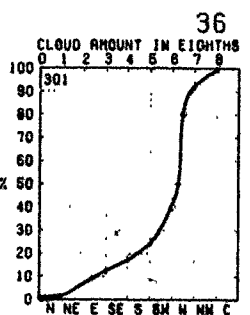
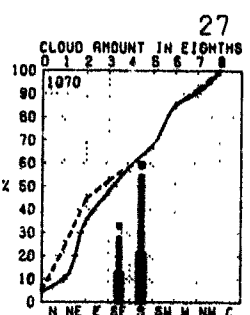
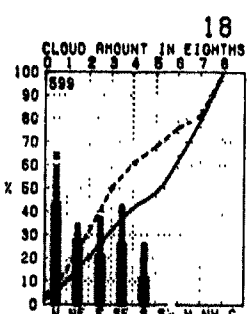
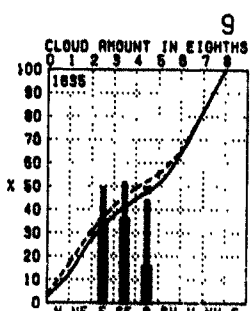
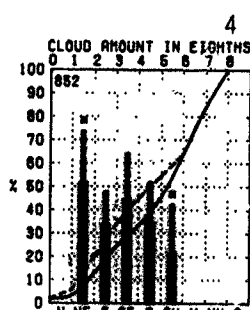
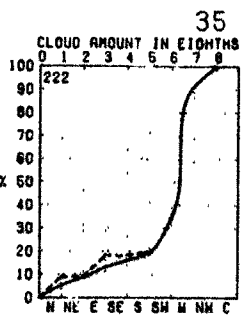
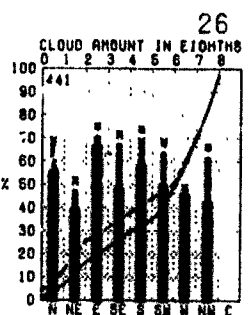
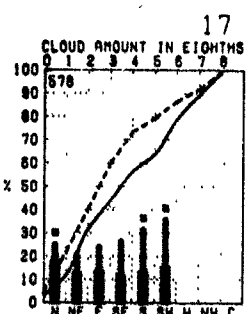
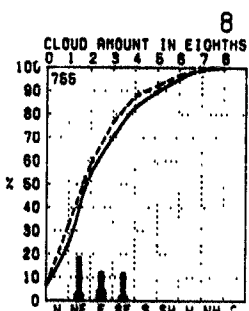
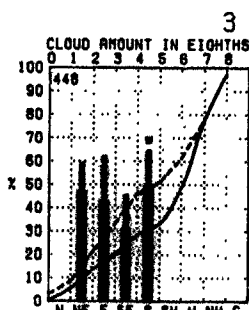
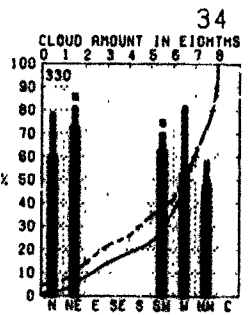
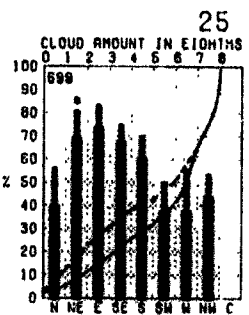
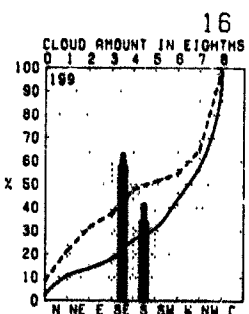
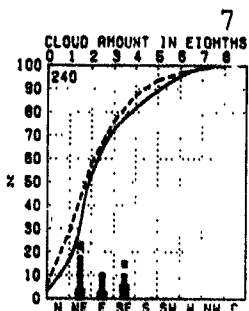
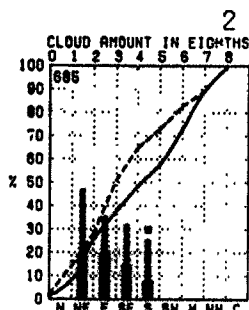
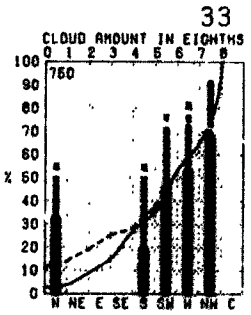
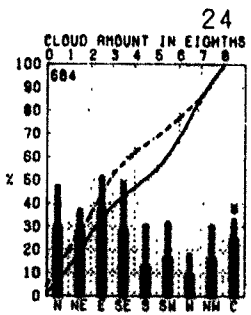
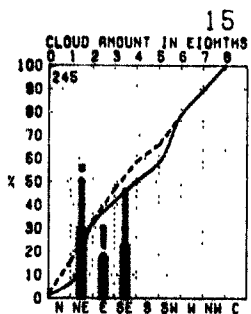
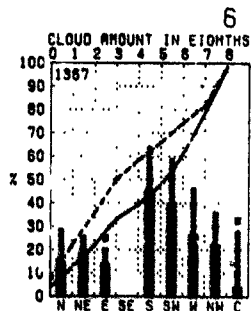
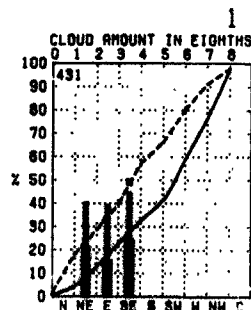
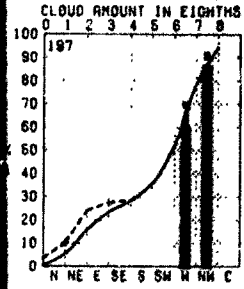
CLOUD AMOUNT IN EIGHTHS



CLOUD AMOUNT IN EIGHTHS

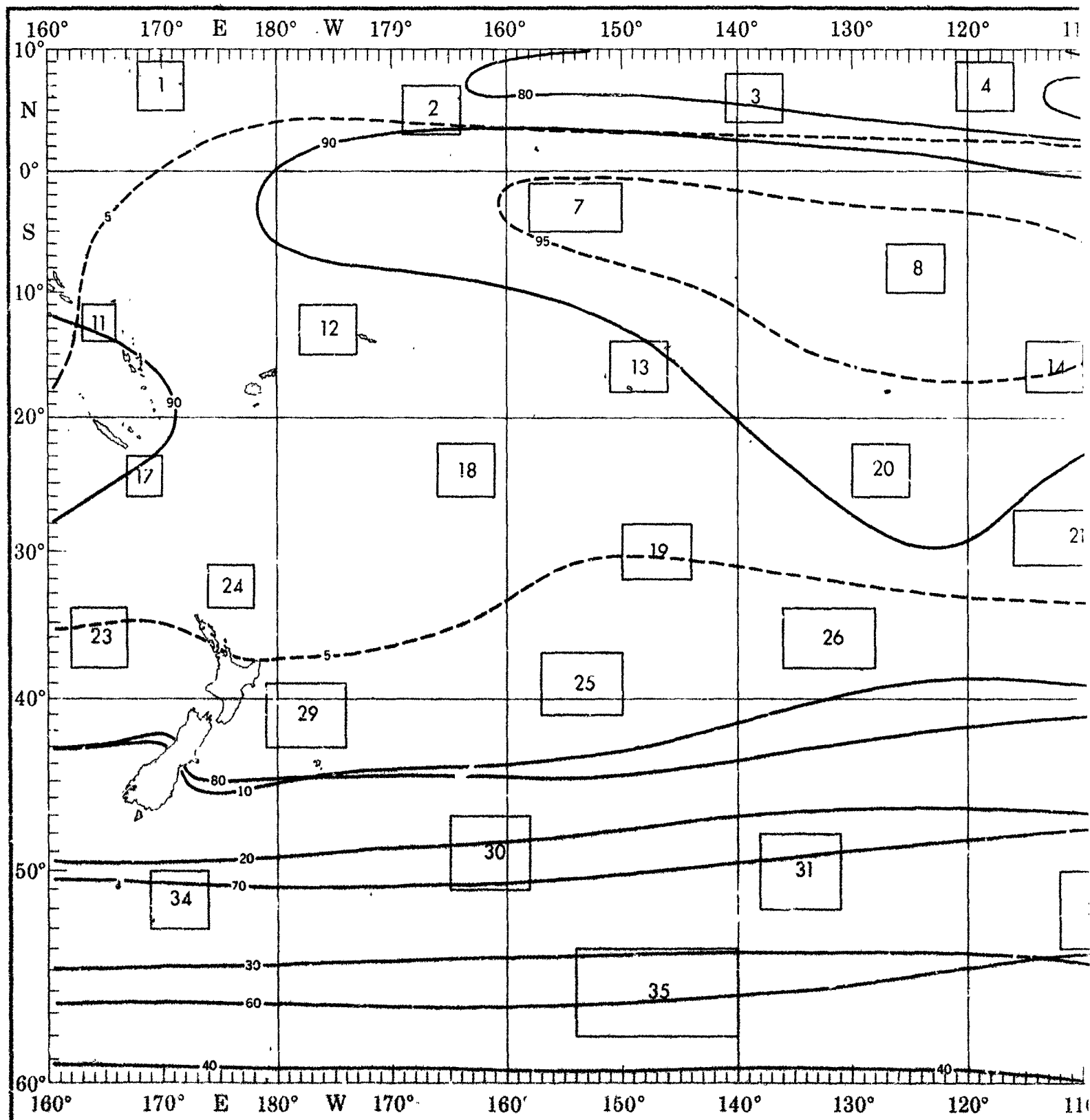


CLOUD AMOUNT IN EIGHTHS

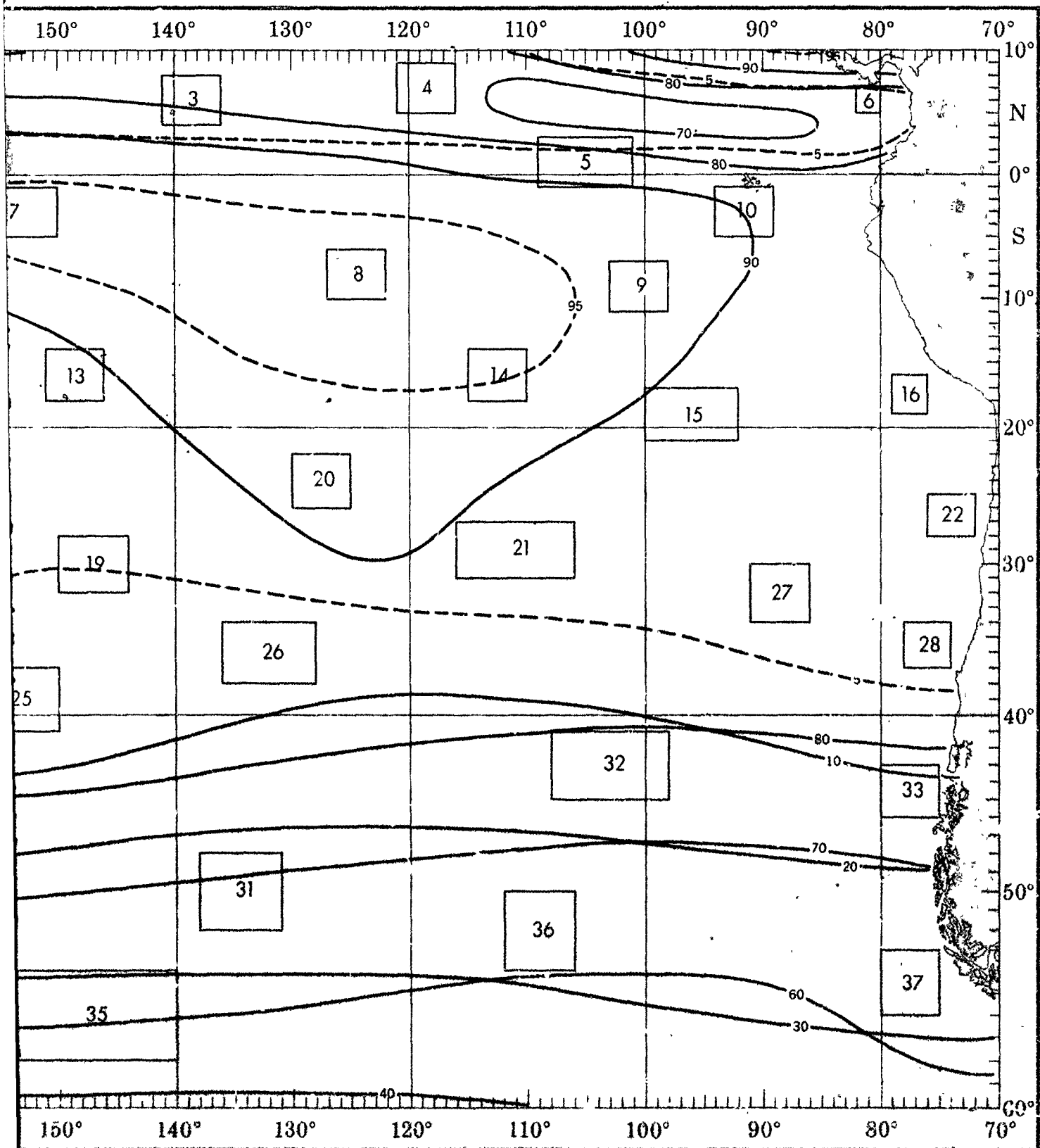


objective compilation of available data for specified areas without regard to suspected biases.
(opposite page) are based on all available data subjectively adjusted where bias was evident.

DECEMBER



CEILING AND VISIBILITY



CEILING AND VISIBILITY

Low cloud ceiling - Visibility

Percent frequency of simultaneous occurrence of specified low cloud ceilings (hundreds of feet) and visibilities (nautical miles)

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is $\geq 5/8$.

Observations are included under ceiling "0" <1.5".

"N C" (no ceiling) includes bases of clouds ≥ 8000 feet as well as occurrences of $N_h < 5/8$

2% of all observations reported ceiling ≥ 1000 but <2000 feet simultaneously with visibility ≥ 5 but <10 nautical miles.)

• indicates <5% but >0

Number of observations

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

BLUE LINE - Percent frequency of low cloud ceiling ≥ 1000 feet (or no low cloud ceiling) and visibility ≥ 5 nautical miles

RED LINE - Percent frequency of low cloud ceiling <600 feet and/or visibility <2 nautical miles

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

VISIBILITY	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	0	0
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	0
20-29	0	0	0	0	0	0
10-19	0	0	0	0	0	0
0-9	0	0	0	0	0	0
1-1.5	0	0	0	0	0	0
0-1.5	0	0	0	0	0	0

LOW CLOUD CEILING

	VISIBILITY					
	<1/2	1/2	3/4	1	1 1/2	2
NC	0	0	0	0	1	17
80-99	0	0	0	0	0	0
30-59	0	0	0	0	0	1
20-29	0	0	0	1	2	10
10-19	0	0	0	5	18	7
5-9	0	0	0	2	8	1
3-4	0	0	0	1	1	0
1-2	0	0	0	0	0	0
0-1	0	2	1	0	0	1

DECEMBER

1

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	2	6	50
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	1
20+36	0	0	0	0	0	3
10+20	0	0	0	1	2	11
6+10	0	0	0	0	4	14
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	3	0	1	0	1	0

LOW CLOUD CEILING

191

2

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	5	60
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	1
20+36	0	0	0	0	1	5
10+20	0	0	0	1	3	12
6+10	0	0	0	1	2	8
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

279

3

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	4	44
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	0
20+36	0	0	0	0	1	3
10+20	0	0	0	2	4	12
6+10	0	0	0	2	5	11
3+6	0	0	0	2	4	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	1	0	1

LOW CLOUD CEILING

221

4

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	8	38
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	0
20+36	0	0	0	0	0	0
10+20	0	0	0	1	3	8
6+10	0	0	0	1	8	11
3+6	0	0	0	1	5	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	1

LOW CLOUD CEILING

219

5

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	3	60
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	2
20+36	0	0	0	0	1	9
10+20	0	0	0	0	1	18
6+10	0	0	0	0	2	10
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

818

6

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	1	57
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	2
20+36	0	0	0	0	1	6
10+20	0	0	0	1	3	10
6+10	0	0	0	1	4	7
3+6	0	0	0	0	1	2
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

785

7

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	7	81
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	0
20+36	0	0	0	0	0	1
10+20	0	0	0	0	2	8
6+10	0	0	0	0	1	0
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

120

8

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	2	88
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	1
20+36	0	0	0	0	0	3
10+20	0	0	0	0	0	8
6+10	0	0	0	0	0	1
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

498

9

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	1	49
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	7
20+36	0	0	0	0	1	9
10+20	0	0	0	1	2	22
6+10	0	0	0	0	1	8
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

888

10

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	1	48
80+80	0	0	0	0	0	2
36+80	0	0	0	0	0	4
20+36	0	0	0	0	1	10
10+20	0	0	0	0	2	21
6+10	0	0	0	0	2	8
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

1127

14

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	1	87
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	5
20+36	0	0	0	0	0	8
10+20	0	0	0	0	1	18
6+10	0	0	0	0	0	3
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

709

15

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	9	52
80+80	0	0	0	0	3	2
36+80	0	0	0	0	0	2
20+36	0	0	0	0	0	3
10+20	0	0	0	0	4	13
6+10	0	0	0	0	2	8
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

108

16

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	1	47
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	7
20+36	0	0	0	0	0	8
10+20	0	0	0	0	1	22
6+10	0	0	0	0	0	8
3+6	0	0	0	0	0	2
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

108

17

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	2	72
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	2
20+36	0	0	0	0	1	4
10+20	0	0	0	0	1	8
6+10	0	0	0	1	2	8
3+6	0	0	0	0	1	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

283

18

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	2	59
80+80	0	0	0	0	0	0
36+80	0	0	0	0	1	2
20+36	0	0	0	0	1	8
10+20	0	0	1	0	2	13
6+10	0	0	0	1	2	9
3+6	0	0	0	0	0	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	1	0	0

LOW CLOUD CEILING

378

23

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	1	3	51
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	3
20+36	0	0	0	0	1	8
10+20	0	0	0	0	4	18
6+10	0	0	0	1	4	5
3+6	0	0	0	0	1	1
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

1059

24

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	1	2	60
80+80	0	0	0	0	0	2
36+80	0	0	0	0	0	2
20+36	0	0	0	0	1	6
10+20	0	0	0	1	2	8
6+10	0	0	0	1	3	8
3+6	0	0	0	0	2	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

381

25

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	3	38
80+80	0	0	0	0	0	1
36+80	0	0	0	0	1	4
20+36	0	0	0	0	1	8
10+20	0	0	1	0	4	23
6+10	0	0	0	3	4	7
3+6	0	0	0	0	2	0
1.5+3	0	0	0	0	0	0
0+1.5	1	0	0	0	0	0

LOW CLOUD CEILING

384

26

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	3	34
80+80	0	0	0	0	0	1
36+80	0	0	0	0	0	3
20+36	0	0	0	0	1	10
10+20	0	0	0	1	8	18
6+10	0	0	0	1	5	9
3+6	0	0	0	1	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

218

27

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	24	34
80+80	0	0	0	0	0	5
36+80	0	0	0	0	0	0
20+36	0	0	0	0	0	10
10+20	0	0	0	0	3	8
6+10	0	0	0	0	0	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	0	0	0	0	0	0

LOW CLOUD CEILING

38

32

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	0	0	3	24
80+80	0	0	0	0	0	0
36+80	0	0	0	0	0	0
20+36	0	0	0	0	3	0
10+20	0	0	0	0	7	21
6+10	0	0	0	0	3	0
3+6	0	0	0	0	0	0
1.5+3	0	0	0	0	0	0
0+1.5	7	7	7	7	10	0

LOW CLOUD CEILING

28

33

VISIBILITY
1/2 P/4 1/2 2/4 3/4 4/4

NC	0	0	1	0	3	28
80+80	0	0	0	0	0	4
36+80	0	0	0	0	0	1
20+36	0	0	0	0	5	10
10+20	0	0	1	0	10	15
6+10	0	0	7	2	7	7
3+6	0	0	0	0	2	4
1.5+3	0	0	0	0	1	0
0+1.5	0	0	1	0	0	0

LOW CLOUD CEILING

107

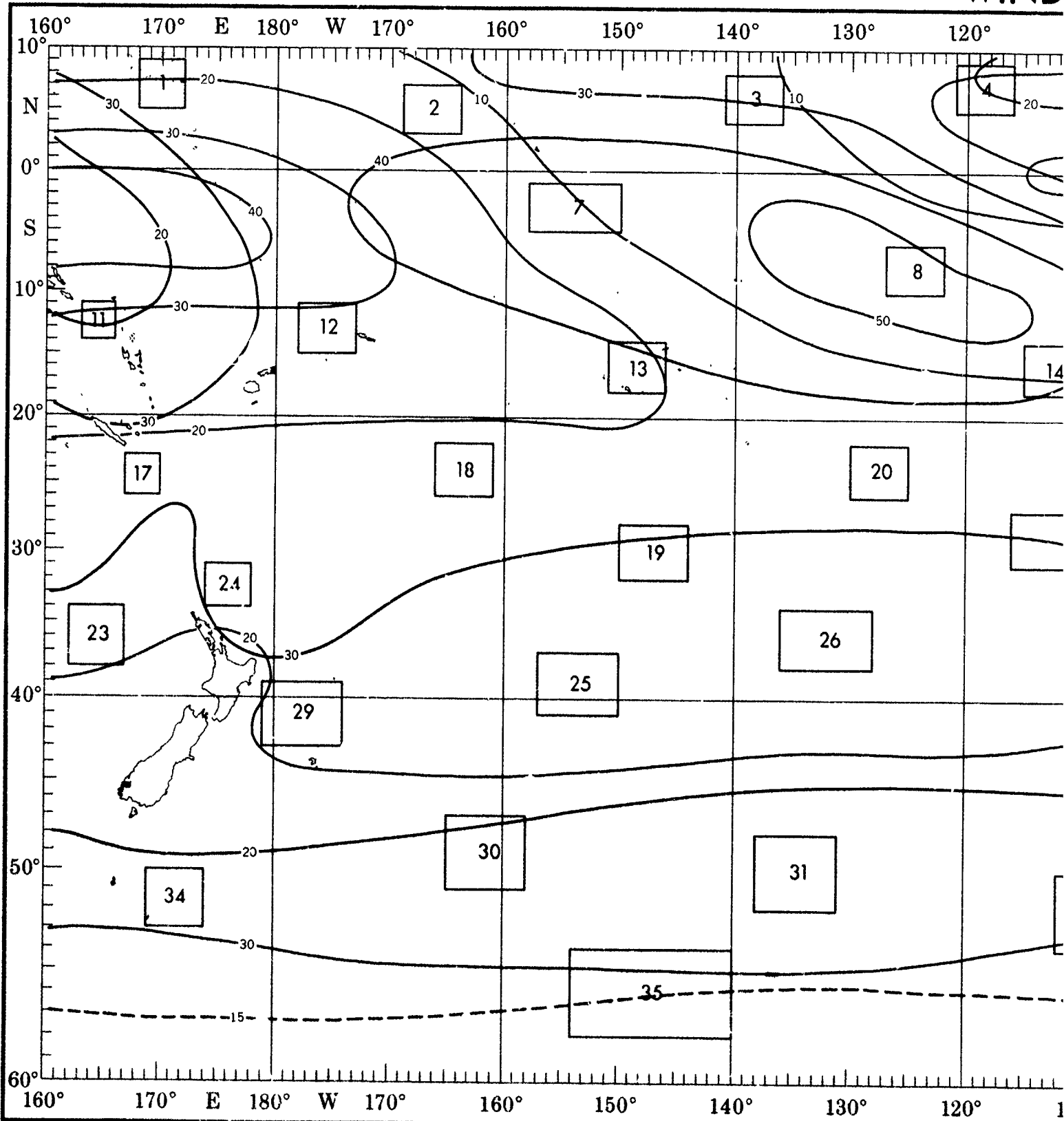
35

LOW CLOUD CEILING

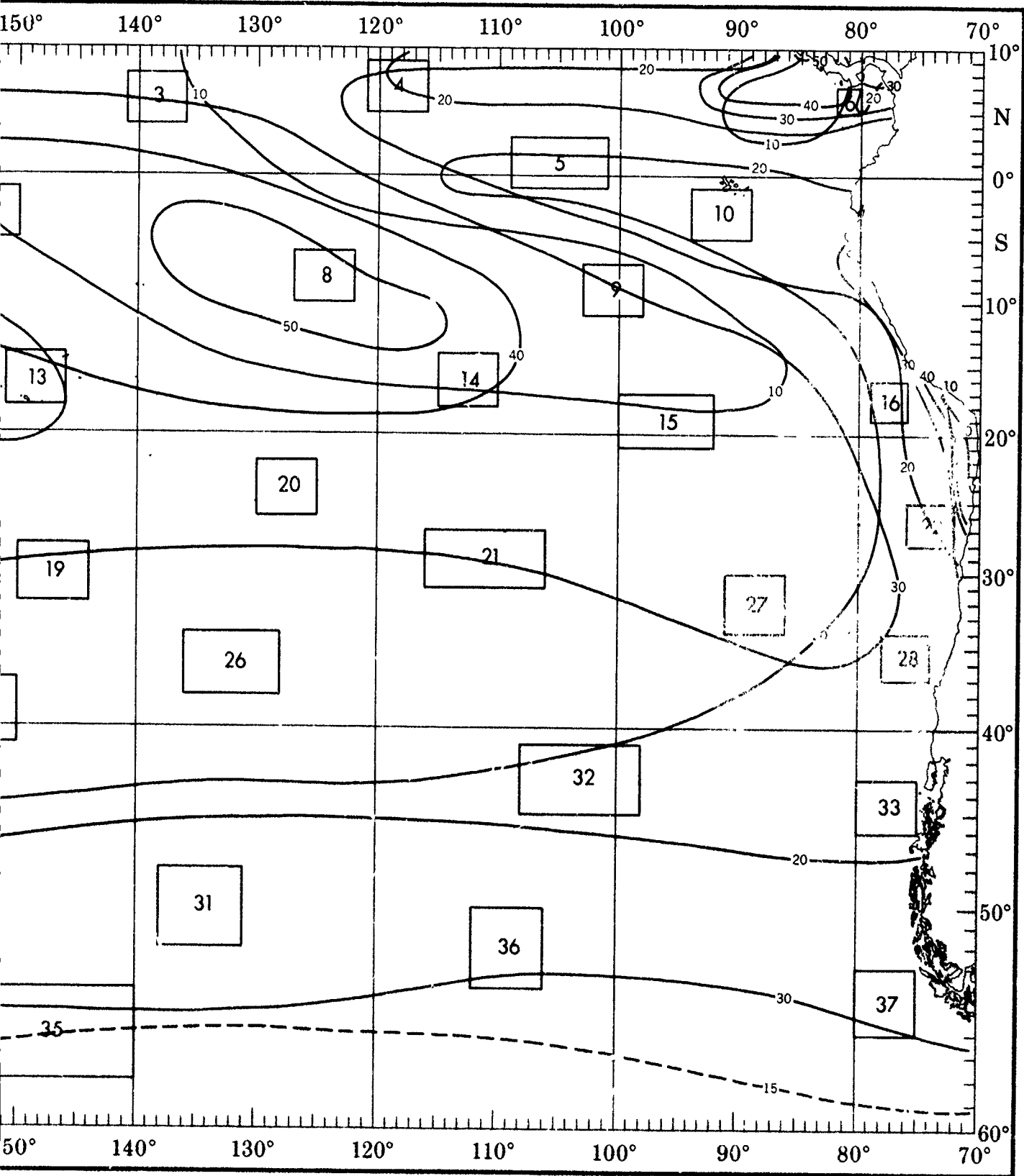
	1/4	1/2	3/4	1	2	3	4	5	6	7	8	9	10	11	12
NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80+80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30+80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20+80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10+80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0+10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3+6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1+5+2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0+1+5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DECEMBER

WIND



WIND-VISIBILITY-CLOUDINESS



LOW CLOUD CEILING-VISIBILITY-WIND

Percent frequency of occurrence of specified wind speed in knots, visibility (Vsbj) in nautical miles, and low cloud ceiling (LCC) in hundreds of feet.

WIND SPEED (knots)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		+	1	1	+	0
<1.5 & OR <2		2	2	1	1	+
<2 & OR <2.5		3	4	2	1	1
<2.5 & OR <3		8	9	6	3	2
<3 & OR <3.5		9	11	12	3	1
<3.5 & OR <4		12	13	13	7	3
<4 & OR <4.5		4	2	1	+	0

Low cloud ceiling heights are estimated from the height of low clouds (h) when low cloud amount (N_h) is ≥5/8.

(2% of the observations reported wind speeds of 11-21 knots, a low cloud ceiling <1000 feet and/or visibility <2 nautical miles.)

"N C" (no ceiling) includes bases of clouds ≥8000 feet as well as occurrences of N_h <5/8

+ indicates <5% but >0

1234 ← Number of observations

Conditions for Carrier Operations

BLUE LINE - Percent frequency of optimum conditions LCC ≥5000 ft., (or no LCC), Vsbj ≥5 nm. and Wind 11-21 kts

RED LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC <300 ft., Vsbj <1 nm., Wind <6 or ≥34 kts.

Satisfactory conditions-between poor and optimum

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		1	1	1	0	0
<2 & OR <2.5		1	0	0	0	0
<2.5 & OR <3		1	8	4	2	0
<3 & OR <3.5		6	14	4	2	1
<3.5 & OR <4		19	52	20	2	1
<4 & OR <4.5		14	37	14	0	0
<4.5 & OR <5		13	33	11	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	1	1	0
<1.5 & OR <2		1	1	5	1	0
<2 & OR <2.5		1	0	2	0	0
<2.5 & OR <3		1	5	10	2	0
<3 & OR <3.5		2	8	18	3	0
<3.5 & OR <4		14	35	39	5	0
<4 & OR <4.5		12	29	25	2	0
<4.5 & OR <5		11	27	22	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	+	0	+	0
<1.5 & OR <2		0	1	2	1	0
<2 & OR <2.5		0	1	1	1	0
<2.5 & OR <3		+	5	4	1	0
<3 & OR <3.5		1	11	9	2	0
<3.5 & OR <4		6	43	42	3	0
<4 & OR <4.5		5	32	33	2	0
<4.5 & OR <5		4	31	31	2	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		0	+	1	0	0
<2 & OR <2.5		0	0	0	0	0
<2.5 & OR <3		0	1	3	+	0
<3 & OR <3.5		+	7	13	1	0
<3.5 & OR <4		2	38	57	2	0
<4 & OR <4.5		3	28	38	2	0
<4.5 & OR <5		2	27	36	2	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		0	0	0	0	0
<2 & OR <2.5		0	0	0	0	0
<2.5 & OR <3		2	2	4	0	0
<3 & OR <3.5		2	9	13	1	0
<3.5 & OR <4		4	48	44	1	0
<4 & OR <4.5		2	37	28	1	0
<4.5 & OR <5		2	33	16	1	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		0	0	0	0	0
<2 & OR <2.5		0	0	0	0	0
<2.5 & OR <3		2	4	0	0	0
<3 & OR <3.5		3	11	1	0	0
<3.5 & OR <4		6	39	5	0	0
<4 & OR <4.5		3	18	2	0	0
<4.5 & OR <5		3	14	1	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	+	0	0	0
<1.5 & OR <2		0	+	+	0	0
<2 & OR <2.5		0	+	+	0	0
<2.5 & OR <3		+	3	3	1	0
<3 & OR <3.5		1	7	5	1	0
<3.5 & OR <4		6	53	35	2	0
<4 & OR <4.5		7	43	25	1	0
<4.5 & OR <5		7	42	23	+	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		0	1	1	0	0
<2 & OR <2.5		0	1	0	0	0
<2.5 & OR <3		0	4	7	0	0
<3 & OR <3.5		0	10	9	0	0
<3.5 & OR <4		6	58	30	1	0
<4 & OR <4.5		2	38	22	0	0
<4.5 & OR <5		2	37	22	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	0	0
<1.5 & OR <2		0	1	1	0	0
<2 & OR <2.5		0	0	0	0	0
<2.5 & OR <3		0	4	8	0	0
<3 & OR <3.5		5	19	23	1	0
<3.5 & OR <4		12	34	52	1	0
<4 & OR <4.5		6	10	21	1	0
<4.5 & OR <5		5	10	19	1	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	+	0	+	+
<1.5 & OR <2		+	1	2	1	+
<2 & OR <2.5		0	+	+	+	+
<2.5 & OR <3		+	3	8	2	+
<3 & OR <3.5		1	10	19	5	1
<3.5 & OR <4		5	34	45	10	1
<4 & OR <4.5		3	21	24	5	1
<4.5 & OR <5		3	20	22	5	+

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		+	1	0	0	0
<1.5 & OR <2		+	2	1	1	1
<2 & OR <2.5		0	1	0	0	0
<2.5 & OR <3		1	5	5	2	1
<3 & OR <3.5		1	9	11	4	1
<3.5 & OR <4		7	41	40	6	1
<4 & OR <4.5		6	30	25	4	0
<4.5 & OR <5		6	29	23	3	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		+	1	0	0	0
<1.5 & OR <2		+	2	1	1	1
<2 & OR <2.5		+	1	0	0	0
<2.5 & OR <3		1	4	1	0	0
<3 & OR <3.5		1	12	2	0	0
<3.5 & OR <4		4	30	4	0	0
<4 & OR <4.5		3	15	1	0	0
<4.5 & OR <5		3	14	1	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	+	+	0	0
<1.5 & OR <2		0	1	2	0	+
<2 & OR <2.5		0	+	+	0	0
<2.5 & OR <3		+	3	7	3	+
<3 & OR <3.5		1	7	13	7	1
<3.5 & OR <4		4	28	48	17	3
<4 & OR <4.5		3	18	24	7	1
<4.5 & OR <5		3	17	21	+	1

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	1	5	0	0
<1.5 & OR <2		0	1	5	0	0
<2 & OR <2.5		0	0	0	0	0
<2.5 & OR <3		0	18	21	5	0
<3 & OR <3.5		0	16	28	11	0
<3.5 & OR <4		0	11	47	21	0
<4 & OR <4.5		0	5	18	11	0
<4.5 & OR <5		0	5	18	11	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	7	31	0	0
<1.5 & OR <2		0	7	31	0	0
<2 & OR <2.5		0	7	14	0	0
<2.5 & OR <3		0	7	34	0	0
<3 & OR <3.5		0	10	59	0	0
<3.5 & OR <4		0	3	89	0	0
<4 & OR <4.5		0	0	28	0	0
<4.5 & OR <5		0	0	24	0	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	0	0	1	0
<1.5 & OR <2		0	1	6	2	1
<2 & OR <2.5		0	0	1	1	1
<2.5 & OR <3		0	8	14	4	1
<3 & OR <3.5		1	12	29	6	2
<3.5 & OR <4		3	29	55	6	1
<4 & OR <4.5		1	10	20	3	0
<4.5 & OR <5		1	8	18	2	0

WIND SPEED (KNOTS)		0-3	4-10	11-21	22-34	≥34
LCC - Vsbj						
<1.0 & OR <1.5		0	1	1	0	0
<1.5 & OR <2		0	1	1	0	0
<2 & OR <2.5		0	1	1	0	0
<2.5 & OR <3		0	8	14	4	1
<3 & OR <3.5		1	12	29	6	2
<3.5 & OR <4		3	29	55	6	1
<4 & OR <4.5		1	10	20	3	0
<4.5 & OR <5		1	8	18	2	0

WIND SPEED				
LCC - VSBY	0-3	4-10	11-21	22-34
<1.5 & OR <1.5	0	1	1	0
<1.5 & OR <2	0	2	2	0
VSBY <2	0	1	1	0
<1.5 & OR <2	0	2	2	0
<2.0 & OR <2.5	0	4	14	4
VSBY >2.5	3	11	4	1
>2.5 & >2.5	2	4	1	1
MC > 10	2	4	1	1

VISIBILITY-WIND

DECEMBER

visibility (Vsby) in nautical

(h) when low cloud amount

ceiling <1000 feet and/or

precipitation of $N_h < 5/8$.

and Wind 11-21 kts

conditions LCC <300 ft.

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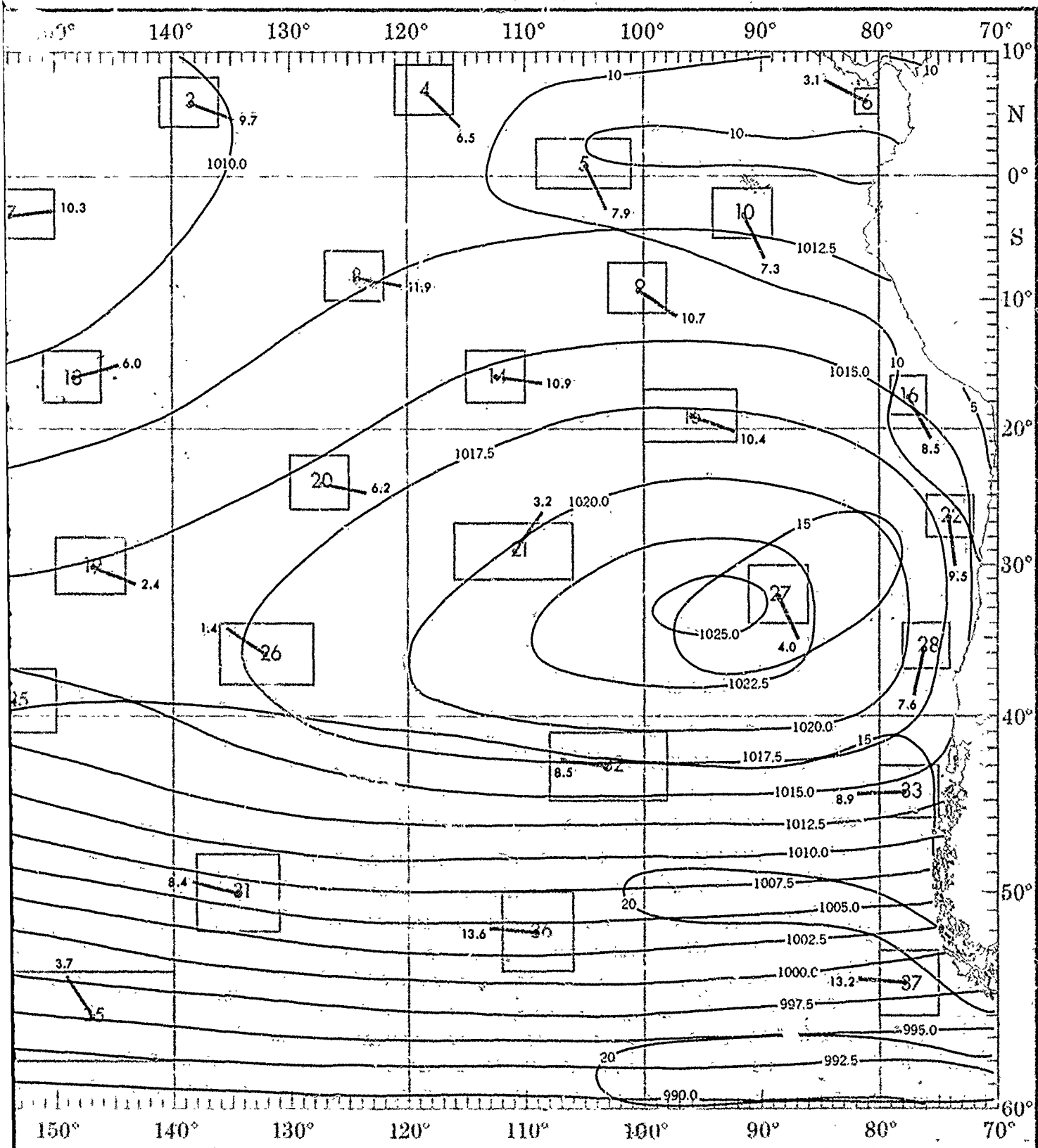
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SEA LEVEL PRE

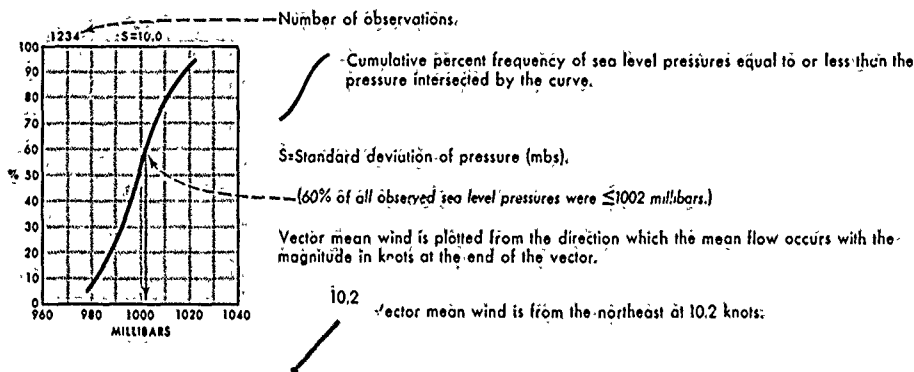


SEA LEVEL PRESSURE AND MEAN WIND



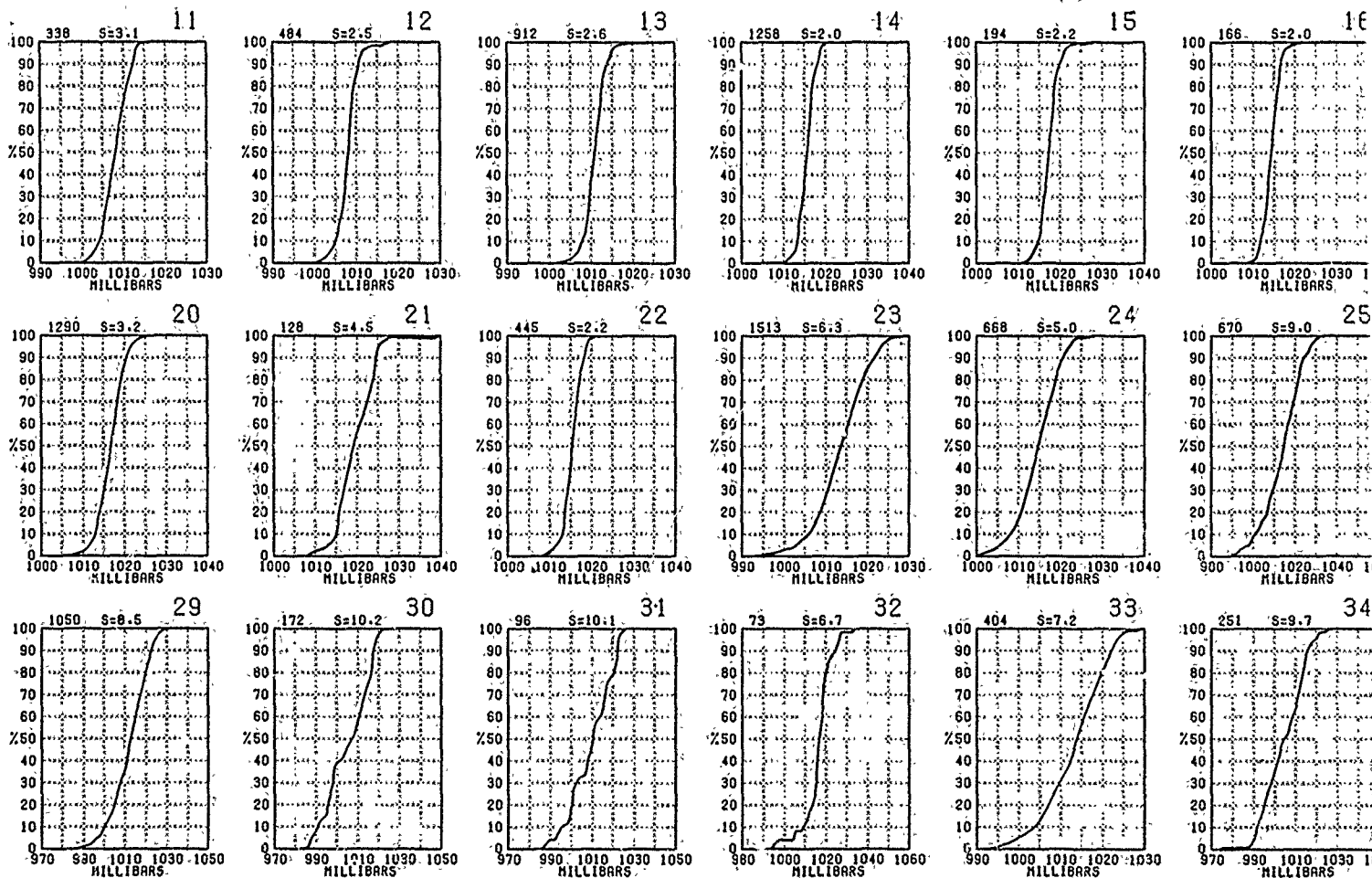
SEA LEVEL PRESSURE

Sea level pressure and mean wind.



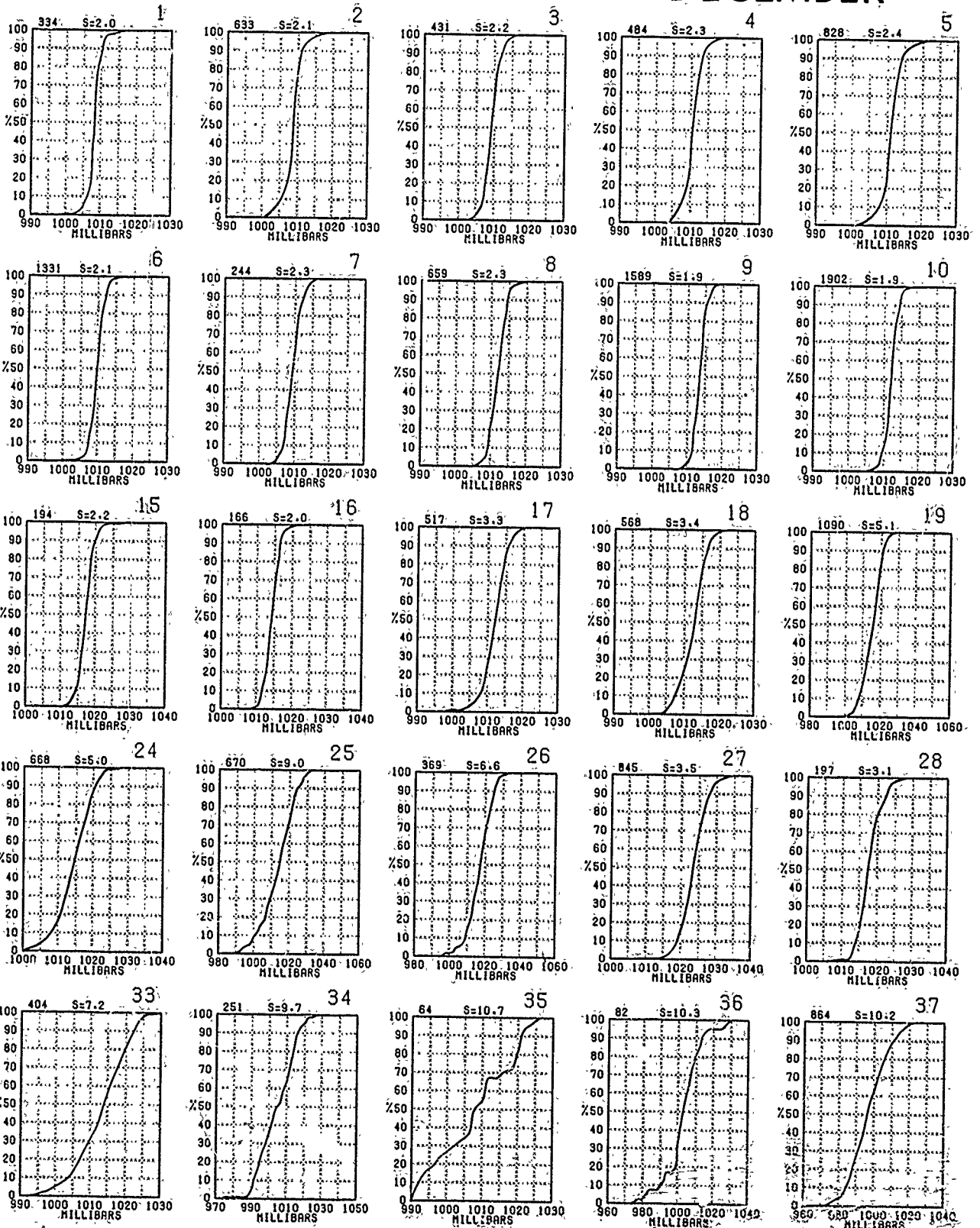
'BLUE' LINE - Scalar mean wind speed (kts.)

RED LINE - Mean sea level pressure (mbs.)



Graphs represent the objective compilation of available data for specified areas without reg. The isopleth analyses (opposite page) are based on all available data subjectively adjusted.

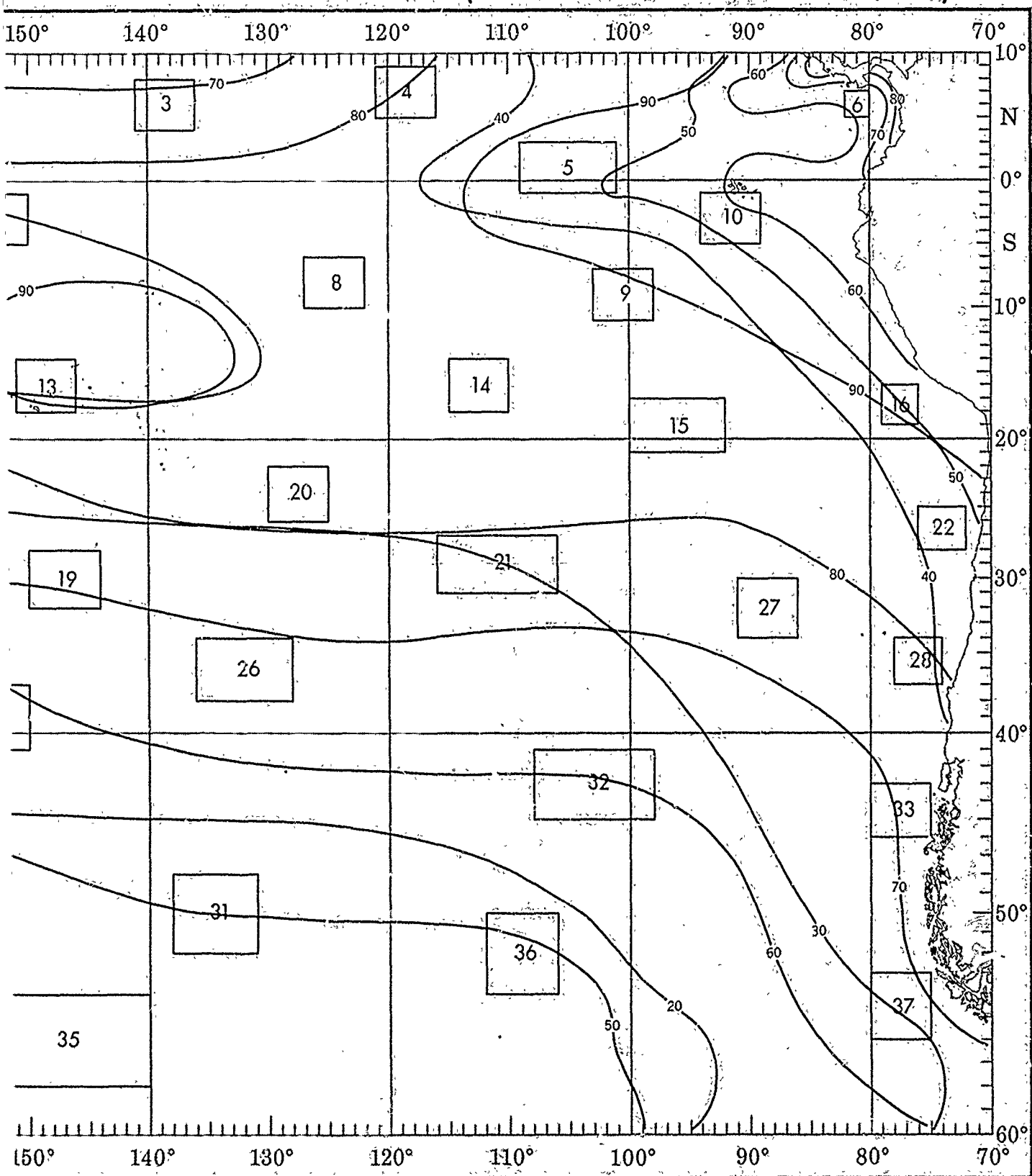
DECEMBER



or less than the.

curves with the

WAVES (<1.5 AND <2.5 METERS)

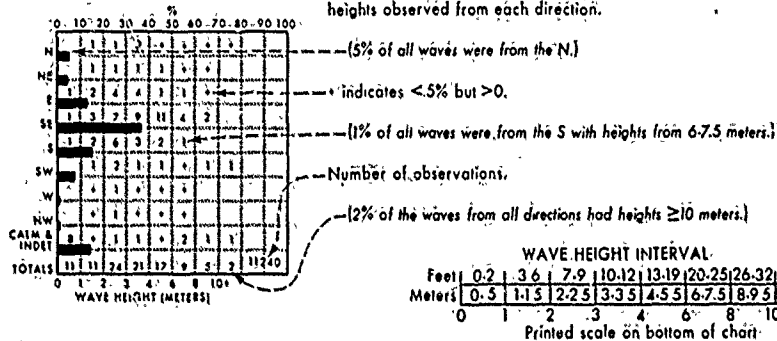


WAVE DIRECTION AND HEIGHT

Wave direction and height.

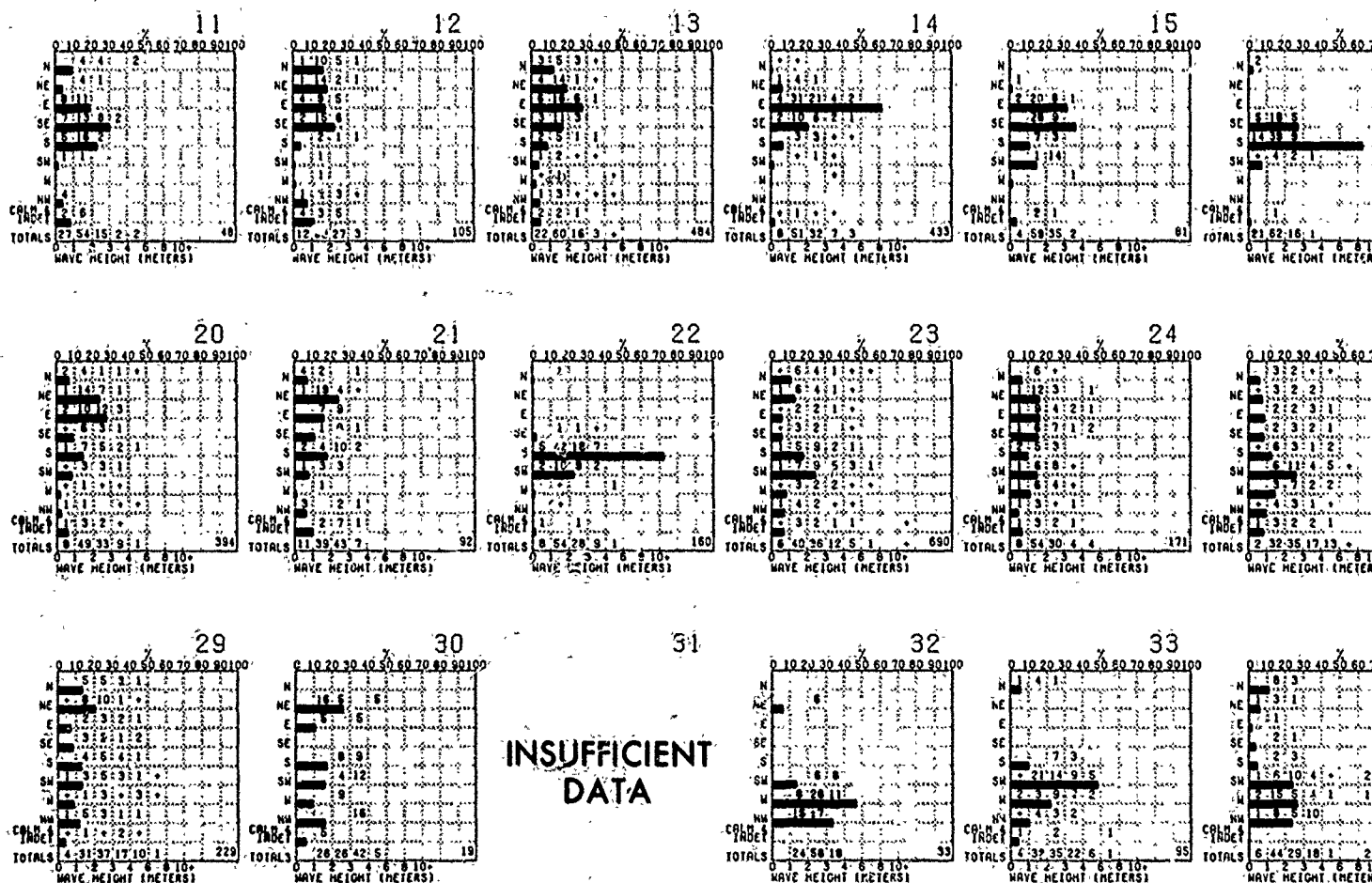
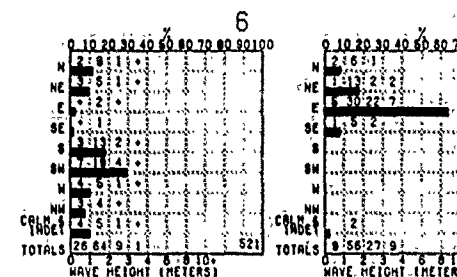
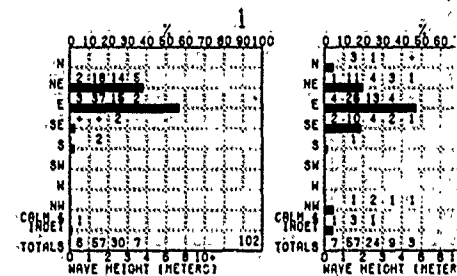
Direction frequency (top scale): Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale): Printed figures represent percent frequency of wave heights observed from each direction.



BLUE LINE - Percent frequency of wave height <15 meters (5 feet)

RED LINE - Percent frequency of wave height <2.5 meters (8 feet)



INSUFFICIENT DATA

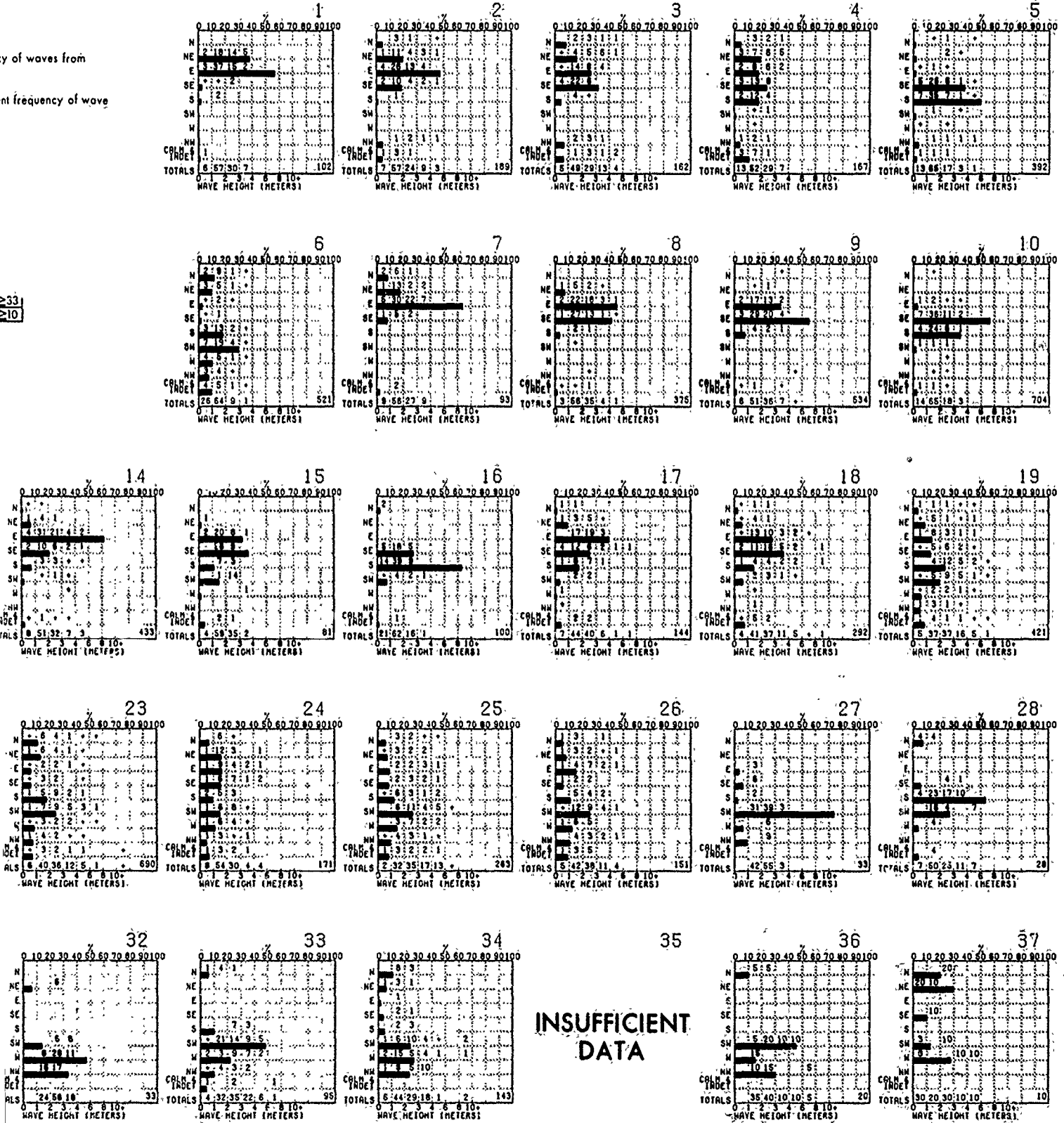
Graphs represent the objective compilation of available data for specified areas without. The isopleth analyses (opposite page) are based on all available data subjectively adjust

HEIGHT

DECEMBER

icy of waves from
ent frequency of wave

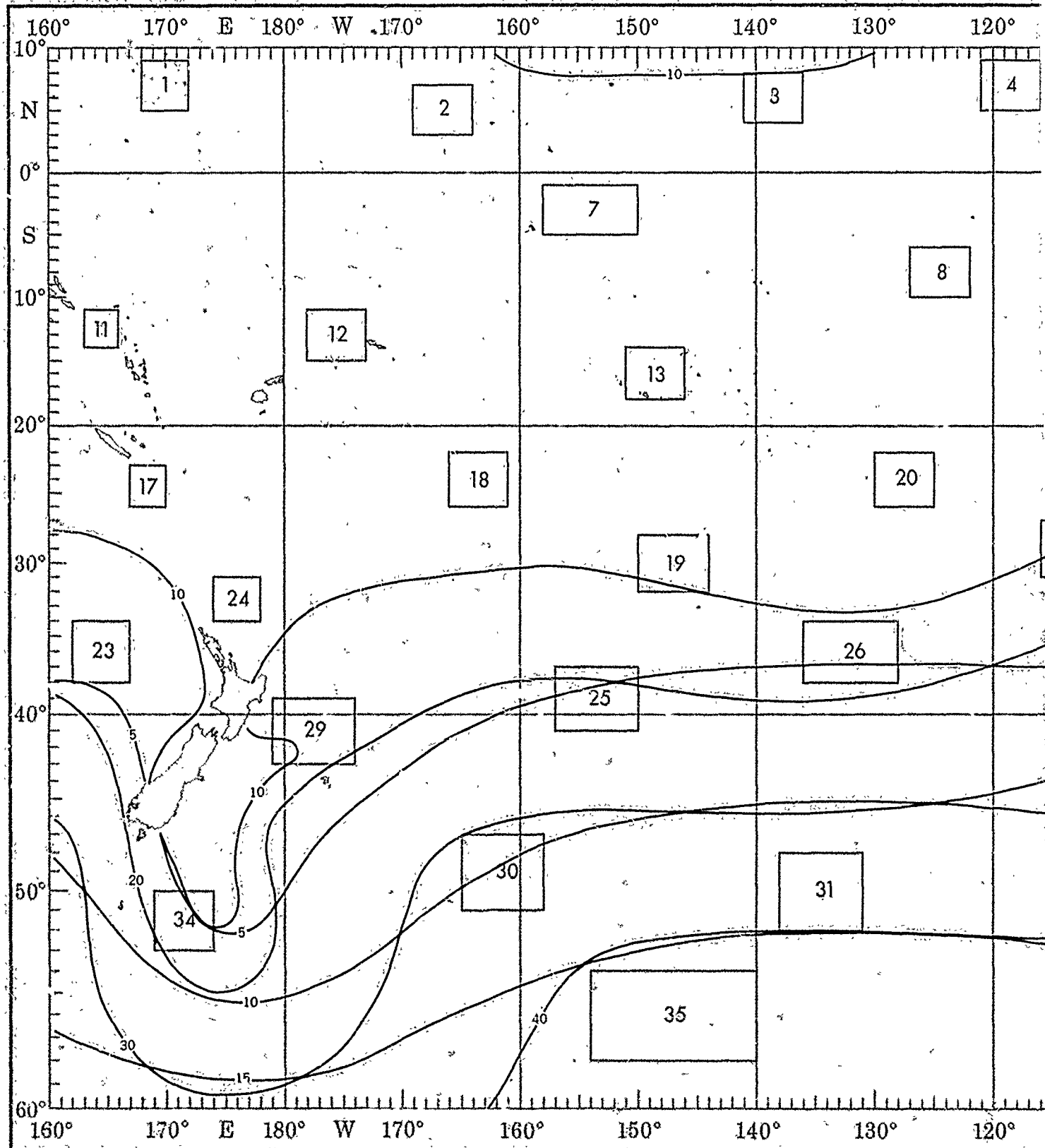
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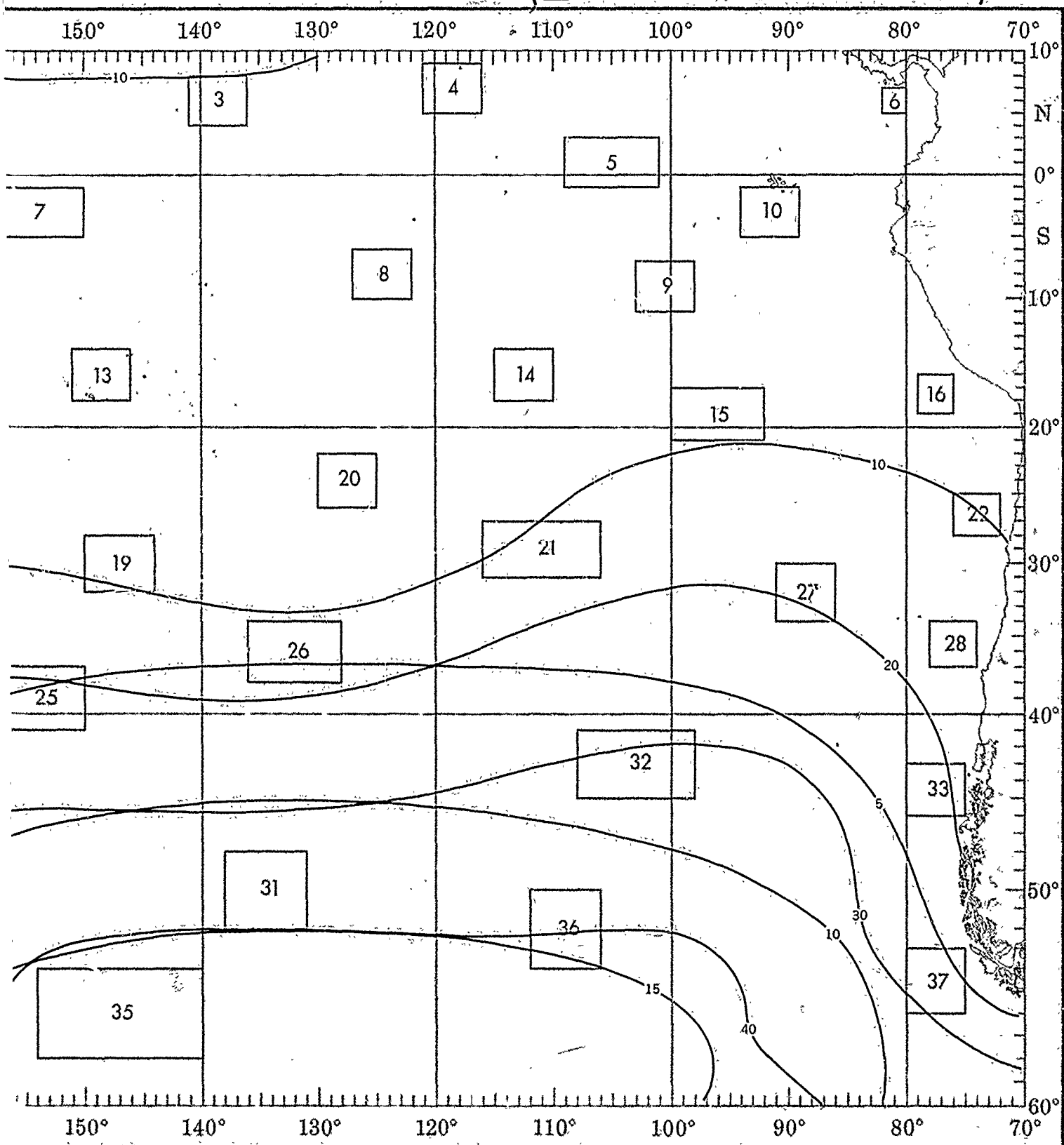
Objective compilation of available data for specified areas without regard to suspected biases.
opposite page) are based on all available data subjectively adjusted where bias was evident.

DECEMBER

WAVE



WAVES (≥ 3.5 AND ≥ 6 METERS)



WAVE PERIOD AND HEIGHT

Percent frequency of occurrence of wave period and height.

PERIOD (SECONDS)

HEIGHT (METERS)	6-	7	8	10-	12-	15	20
0-0.5	21	3	1	+	+	+	0
1-1.5	22	16	6	2	1	+	+
2-2.5	3	6	4	3	1	+	+
3-3.5	+	1	1	1	1	+	+
4-4.5	+	+	+	+	+	+	0
5-5.5	0	+	+	0	0	+	0
6-6.5	0	0	0	+	0	0	0
7-7.5	0	0	0	0	+	0	0
8-8.5	0	0	0	0	0	+	0
9-9.5	0	0	0	0	0	0	+
10-10.5	0	0	0	0	0	0	+

4010

(2% of observed waves had a height of 1-1.5 meters and a period of 10-11 seconds.)

+ indicates < 5% but > 0.

Number of observations.

Waves are selected on the basis of the higher of sea and swell when both are reported. If both heights are equal, the wave with the longer period is selected.

BLUE LINE - Percent frequency of wave height ≥ 3.5 meters (12 feet)

RED LINE - Percent frequency of wave height ≥ 6 meters (20 feet)

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PERIOD (SECONDS)	6-	7	8	10-	12-	15	20
HEIGHT (METERS)	6-	7	8	10-	12-	15	20
0-0.5	19	2	6	0	0	0	0
1-1.5	15	31	6	0	0	0	2
2-2.5	4	6	4	0	0	0	0
3-3.5	2	0	0	0	0	0	0
4-4.5	0	0	2	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

48

12

		PERIOD (SECONDS)						
HEIGHT (METERS)	6-	7	8	10-	12-	15	20	IND
0-0.5	13	0	0	1	0	0	3	
1-1.5	20	21	10	2	2	0	1	
2-2.5	3	14	6	0	0	0	3	
3-3.5	0	0	2	1	0	0	0	
4-4.5	0	0	0	0	0	0	0	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	

110

13

		PERIOD (SECONDS)							
HEIGHT		6-	7	8	10-	12-	15	20	20
(INCHES)		6-	7	8	10-	12-	15	20	20
0-0.5		14	4	3	+	0	0	2	
1-1.5		22	21	8	2	1	+	3	
2-2.5		3	5	3	1	1	+	1	
3-3.5		+	+	1	1	1	0	0	
4-4.5		+	0	0	0	0	0	0	
5-5.5		0	0	0	0	0	0	0	
6-6.5		0	0	0	0	0	0	0	
7-7.5		0	0	0	0	0	0	0	
8-8.5		0	0	0	0	0	0	0	
9-9.5		0	0	0	0	0	0	0	
10-10.5		0	0	0	0	0	0	0	

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		PERIOD (SECONDS)						
HEIGHT (METERS)	6-	7	8	10-	12-	15	20	IND
0-0.5	5	2	+	0	0	0	+	
1-1.5	24	19	3	1	1	+	2	
2-2.5	9	14	6	2	0	1	+	
3-3.5	2	3	2	0	0	+	+	
4-4.5	+	1	1	+	0	+	0	
5-5.5	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	

433

		PERIOD (SECONDS)								
HEIGHT (METERS)		6-		7		8		10-12-		END
		6-	7	8	9	10	11	12	13	
0-0.5	8	0	0	0	0	0	0	0	0	
1-1.5	29	13	11	2	0	0	0	0	0	
2-2.5	4	9	12	8	0	0	0	0	0	
3-3.5	0	1	0	1	0	0	0	0	0	
4-4.5	0	0	0	0	0	0	0	0	0	
5-5.5	0	0	0	0	0	0	0	0	0	
6-6.5	0	0	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	0	0	

85

		PERIOD (SECONDS)						
HEIGHT (METERS)	6-	7	8	10-	12-	15	20	
0-0.5	11	2	2	2	0	0		
1-1.5	18	24	13	3	0	0		
2-2.5	1	8	3	4	0	0		
3-3.5	0	0	1	0	0	0		
4-4.5	0	0	0	0	0	0		
5-5.5	0	0	0	0	0	0		
6-6.5	0	0	0	0	0	0		
7-7.5	0	0	0	0	0	0		
8-8.5	0	0	0	0	0	0		
9-9.5	0	0	0	0	0	0		
10-10.5	0	0	0	0	0	0		

2

20

PERIOD (SECONDS)

HEIGHT (METERS)

6- 7- 8- 10- 12- 15- 20-

0-0.5 6- 7- 8- 10- 12- 15- 20-

1-1.5 19 16 7 1 2 + 4

2-2.5 8 9 10 2 1 1 2

3-3.5 2 3 3 + + 0 1

4-4.5 + + + 0 0 0 0

5-5.5 0 0 0 0 0 0 0

6-6.5 0 0 0 0 0 0 0

7-7.5 0 0 0 0 0 0 0

8-8.5 0 0 0 0 0 0 0

9-9.5 0 0 0 0 0 0 0

10-10.5 0 0 0 0 0 0 0

397

21

PERIOD (SECONDS)

HEIGHT (METERS)

0-0.5

1-1.5

2-2.5

3-3.5

4-4.5

5-5.5

6-6.5

7-7.5

8-8.5

9-9.5

10-10.5

11-11.5

12-12.5

13-13.5

14-14.5

15-15.5

16-16.5

17-17.5

18-18.5

19-19.5

20-20.5

21-21.5

22-22.5

23-23.5

24-24.5

25-25.5

26-26.5

27-27.5

28-28.5

29-29.5

30-30.5

31-31.5

32-32.5

33-33.5

34-34.5

35-35.5

36-36.5

37-37.5

38-38.5

39-39.5

40-40.5

41-41.5

42-42.5

43-43.5

44-44.5

45-45.5

46-46.5

47-47.5

48-48.5

49-49.5

50-50.5

51-51.5

52-52.5

53-53.5

54-54.5

55-55.5

56-56.5

57-57.5

58-58.5

59-59.5

60-60.5

61-61.5

62-62.5

63-63.5

64-64.5

65-65.5

66-66.5

67-67.5

68-68.5

69-69.5

70-70.5

71-71.5

72-72.5

73-73.5

74-74.5

75-75.5

76-76.5

77-77.5

78-78.5

79-79.5

80-80.5

81-81.5

82-82.5

83-83.5

84-84.5

85-85.5

86-86.5

87-87.5

88-88.5

89-89.5

90-90.5

91-91.5

92-92.5

93-93.5

94-94.5

95-95.5

96-96.5

97-97.5

98-98.5

99-99.5

100-100.5

101-101.5

102-102.5

103-103.5

104-104.5

105-105.5

106-106.5

107-107.5

108-108.5

109-109.5

110-110.5

111-111.5

112-112.5

113-113.5

114-114.5

115-115.5

116-116.5

117-117.5

118-118.5

119-119.5

120-120.5

121-121.5

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123-123.5

124-124.5

125-125.5

126-126.5

127-127.5

128-128.5

129-129.5

130-130.5

131-131.5

132-132.5

133-133.5

134-134.5

135-135.5

136-136.5

137-137.5

138-138.5

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140-140.5

141-141.5

142-142.5

143-143.5

144-144.5

145-145.5

146-146.5

147-147.5

148-148.5

149-149.5

150-150.5

151-151.5

152-152.5

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198-198.5

199-199.5

200-200.5

201-201.5

202-202.5

203-203.5

204-204.5

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206-206.5

207-207.5

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209-209.5

210-210.5

211-211.5

212-212.5

213-213.5

214-214.5

215-215.5

216-216.5

217-217.5

218-218.5

219-219.5

220-220.5

221-221.5

222-222.5

223-223.5

224-224.5

225-225.5

226-226.5

227-227.5

228-228.5

229-229.5

230-230.5

231-231.5

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233-233.5

234-234.5

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283-283.5

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285-285.5

286-286.5

287-287.5

288-288.5

289-289.5

290-290.5

291-291.5

92

22

HEIGHT (METERS)	PERIOD (SECONDS)							IND
	6-	7	8	10-	12-	15	20	
0-0.5	6	1	0	0	0	0	0	3
1-1.5	22	16	7	5	1	0	2	2
2-2.5	1	11	10	2	1	0	2	2
3-3.5	0	1	5	1	2	0	0	0
4-4.5	0	1	0	0	0	0	0	0
5-5.5	0	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0	0

164

23

	PERIOD (SECONDS)							
HEIGHT (METERS)	6-	7	8	10-	12-	15	20	
0-0.5	5	1	0	0	0	0	1	
1-1.5	15	15	4	2	2	+	2	
2-2.5	5	12	13	2	1	1	2	
3-3.5	1	3	4	1	1	1	+	
4-4.5	+	1	2	1	0	0	+	
5-5.5	0	+	+	+	+	+	0	
6-6.5	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	

696

24

HEIGHT (METERS)	PERIOD (SECONDS)						
	6-	7	8	10-	12-	15	20
0-0.5	6	0	0	1	0	0	1
1-1.5	26	13	6	1	4	1	3
2-2.5	6	11	8	2	0	2	1
3-3.5	1	1	1	0	0	0	1
4-4.5	0	1	3	0	0	0	0
5-5.5	0	0	0	0	0	0	0
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

173

2

	PERIOD (SECONDS)						
HEIGHT (METERS)	6-	7	8	10-	12-	15	20
0-0.5	2	0	0	0	0	0	0
1-1.5	10	14	4	1	1	0	0
2-2.5	7	14	10	2	+	0	+
3-3.5	2	5	7	1	1	0	0
4-4.5	2	2	3	3	2	1	0
5-5.5	0	0	0	0	0	0	+
6-6.5	0	0	0	0	0	0	0
7-7.5	0	0	0	0	0	0	0
8-8.5	0	0	0	0	0	0	0
9-9.5	0	0	0	0	0	0	0
10-10.5	0	0	0	0	0	0	0

2

29

		PERIOD (SECONDS)							
HEIGHT (METERS)	6-	7	8	10-	12-	15	20		IND
0-0.5	3	1	0	0	0	0	0	+	
1-1.5	10	14	4	+	0	0	0	2	
2-2.5	7	15	8	6	0	0	0	+	
3-3.5	3	3	4	3	+	0	0	2	
4-4.5	1	2	2	2	2	+	+		
5-5.5	0	0	0	+	+	0	0	0	
6-6.5	0	0	0	0	0	0	0	0	
7-7.5	0	0	0	0	0	0	0	0	
8-8.5	0	0	0	0	0	0	0	0	
9-9.5	0	0	0	0	0	0	0	0	
10-10.5	0	0	0	0	0	0	0	0	

231

30

		PERIOD (SECONDS)						
HEIGHT (METERS)		6-	7	8	10-	12-	15	20
		0	0	0	0	0	0	0
0-6	0	0	0	0	0	0	0	0
1-6	11	11	0	0	5	0	0	0
2-6	5	0	11	11	0	0	0	0
3-6	0	5	25	11	0	0	0	0
4-6	0	0	5	0	0	0	0	0
5-6	0	0	0	0	0	0	0	0
6-6	0	0	0	0	0	0	0	0
7-6	0	0	0	0	0	0	0	0
8-6	0	0	0	0	0	0	0	0
9-6	0	0	0	0	0	0	0	0

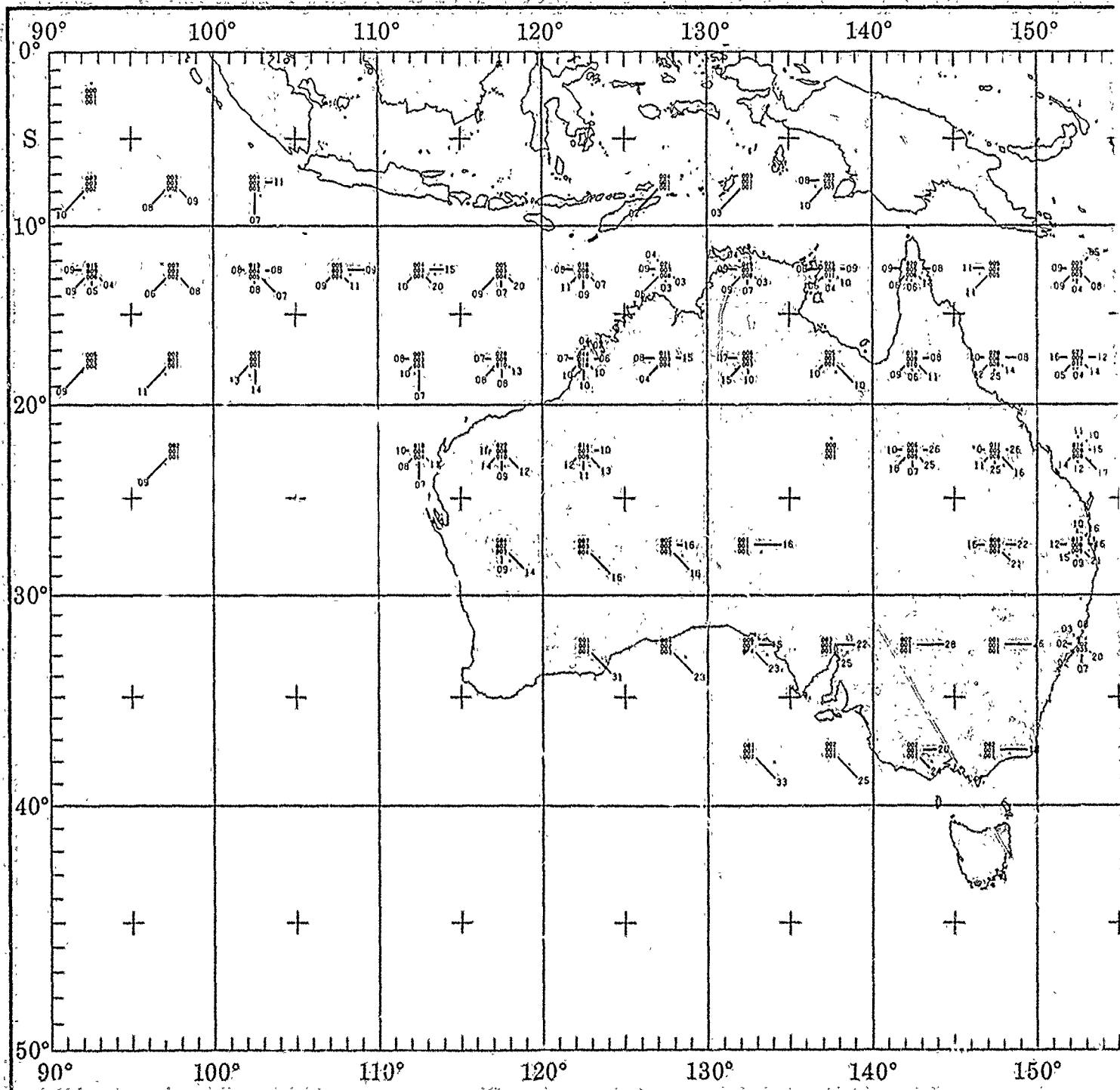
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DECEMBER

are reported. If both

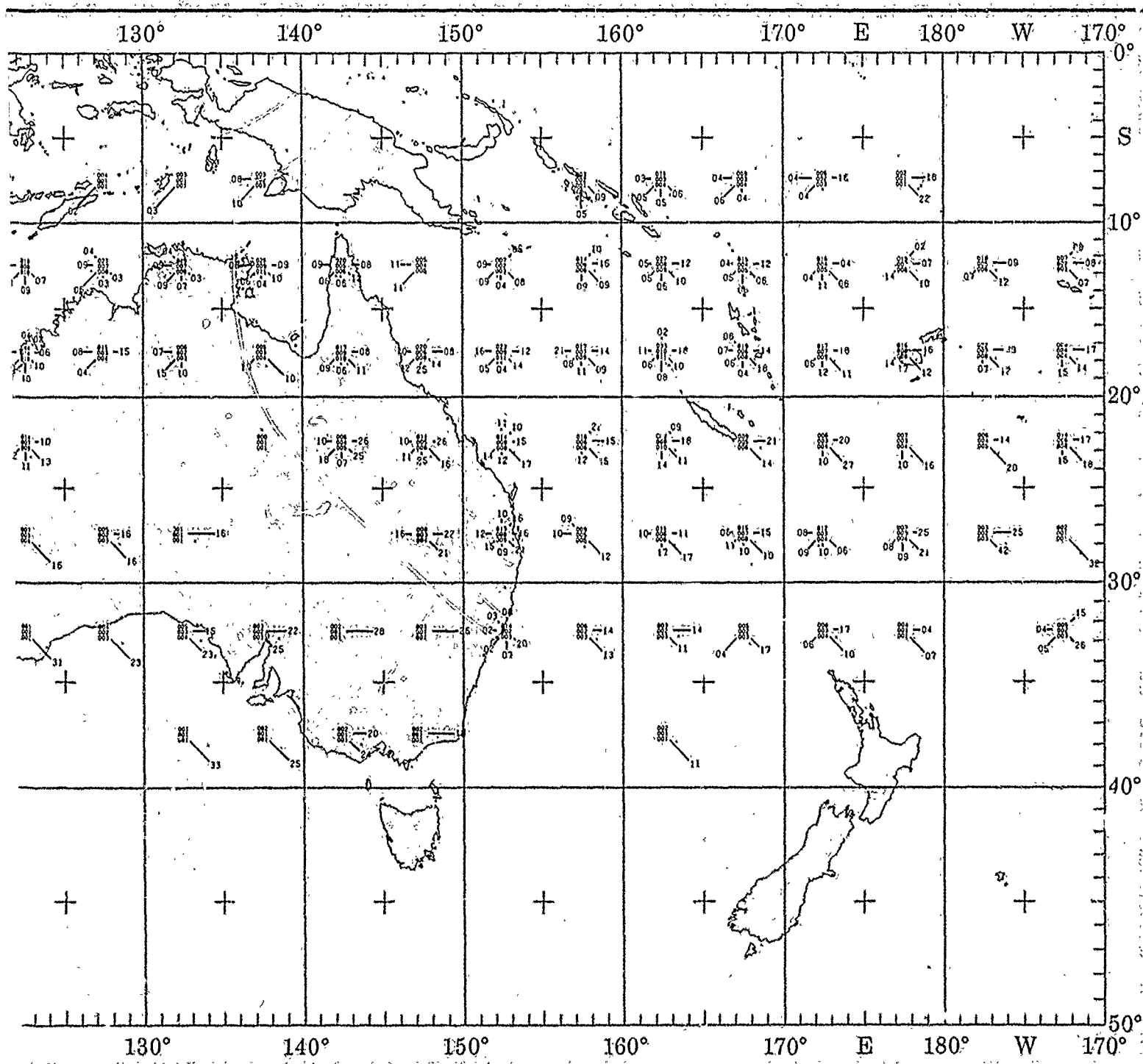
1										2										3										4										5									
PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)									
HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"
ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25
0-5	3	2	0	0	0	0	0	0	1	0-5	4	2	1	0	0	0	0	1		0-5	4	0	1	0	0	0	0	0	0-5	4	3	1	1	0	0	0	5	0-5	11	1	2	1	0	0	1				
1-1.5	21	26	5	2	2	0	1			1-1.5	17	22	13	1	2	0	2			1-1.5	20	20	4	1	1	0	3		1-1.5	19	15	8	1	0	1	7			1-1.5	2	24	10	3	1	1	2			
2-2.5	3	16	5	1	3	1	2			2-2.5	4	8	8	3	1	0	1			2-2.5	6	12	3	3	2	0	3		2-2.5	8	9	7	0	1	1	2			2-2.5	2	6	5	2	1	1	1			
3-3.5	0	6	1	0	0	0	0			3-3.5	0	6	2	1	0	0	0			3-3.5	3	2	6	2	0	0	1		3-3.5	0	1	6	0	0	0	0			3-3.5	0	1	2	0	0	0	0			
4-5.5	0	0	0	0	0	0	0			4-5.5	0	1	1	0	1	0	0			4-5.5	0	1	1	1	0	0	2		4-5.5	0	0	0	0	0	0	0			4-5.5	0	0	1	0	0	0	0			
6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0		6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0			
8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0		8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0			
10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0		10	0	0	0	0	0	0	0			10	0	0	0	0	0	0				
102										189										162										169										399									
6										7										8										9										10									
PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)									
HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"
ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25
0-5	20	3	0	0	0	0	0	5		0-5	8	2	0	0	0	0	0	0		0-5	2	1	1	0	0	0	0		0-5	3	1	1	0	0	0	0	1			0-5	11	2	1	0	0	0	1		
1-1.5	29	19	5	1	1	1	1	5		1-1.5	25	20	6	0	0	0	2	1		1-1.5	28	17	5	2	1	0	1		1-1.5	22	18	4	1	2	2	2			1-1.5	31	19	8	0	3	1	2			
2-2.5	2	4	2	1	0	0	1			2-2.5	5	11	6	3	1	0	0			2-2.5	7	11	10	4	1	1	1		2-2.5	10	16	8	1	1	1	0			2-2.5	5	8	3	1	1	1	0			
3-3.5	1	0	0	0	0	0	0			3-3.5	0	5	3	0	0	0	0			3-3.5	0	2	1	0	0	0	0		3-3.5	2	4	1	0	0	0	1	0			3-3.5	0	2	1	0	0	0	0		
4-5.5	0	0	0	0	0	0	0			4-5.5	0	0	0	0	0	0	0			4-5.5	0	0	1	0	0	0	0		4-5.5	0	0	0	0	0	0	0	0			4-5.5	0	0	0	0	0	0	0		
6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0		6-7.5	0	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0		
8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0		8-9.5	0	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0		
10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0		10	0	0	0	0	0	0	0	0			10	0	0	0	0	0	0			
539										95										376										535										713									
15										16										17										18										19									
PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)									
HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"
ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25
0-5	6	0	0	0	0	0	0	0		0-5	11	2	2	2	0	0	6			0-5	7	0	0	0	0	0	0		0-5	4	0	0	0	0	0	0	0			0-5	3	1	0	0	0	0	1		
1-1.5	29	13	11	2	0	0	1			1-1.5	18	24	13	3	0	0	4			1-1.5	15	18	6	2	0	1	3		1-1.5	15	13	3	1	1	1	9			1-1.5	11	13	6	1	1	1	4			
2-2.5	4	9	12	8	0	0	0			2-2.5	1	8	3	4	0	0	0			2-2.5	8	16	11	3	0	0	3		2-2.5	6	16	8	4	1	0	2			2-2.5	7	9	10	6	1	1	2			
3-3.5	0	1	0	1	0	0	0			3-3.5	0	0	1	0	0	0	0			3-3.5	0	1	1	2	1	0	1		3-3.5	2	3	1	4	0	0	0			3-3.5	1	7	3	3	0	0	1			
4-5.5	0	0	0	0	0	0	0			4-5.5	0	0	0	0	0	0	0			4-5.5	0	0	1	0	0	0	0		4-5.5	0	2	2	1	0	0	0			4-5.5	0	1	1	1	0	0	1			
6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	1	0	0	0	0		6-7.5	0	0	0	0	0	0	0			6-7.5	0	0	0	0	0	0	0			
8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0		8-9.5	0	0	0	0	0	0	0	0			8-9.5	0	0	0	0	0	0	0		
10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0			10	0	0	0	0	0	0	0		10	0	0	0	0	0	0	0	0			10	0	0	0	0	0	0			
85										102										144										282										423									
24										25										26										27										28									
PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)										PERIOD (SECONDS)									
HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"	HEIGHT	6"	7"	8"	10"	12"	15"	18"	20"	25"
ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25	ENTRYS	6	7	8	10	12	15	18	20	25
0-5	6	0	0	1	0	0	1			0-5	2	0	0	0	0	0	1			0-5	4	0	0	0	0	0	1		0-5	0	0	0	0	0	0	0	0			0-5	7	0	0	0	0	0	0		
1-1.5	26	13	6	1	4	1	3			1-1.5	10	14	4	1	1	0	3			1-1.5	19	13	5	0	2	1	3		1-1.5	6	9	0	3	24	0	0			1-1.5	4	32	7	0	4	0	4			
2-2.5	6	11	8	2	0	2	1			2-2.5	7	14	10	2	0	0	2			2-2.5	4	13	13	1	1	3	3		2-2.5	0	3	9	6	36	0	0			2-2.5	4	11	11	0	0	0	0			
3-3.5	1	1	1	0	0	0	1			3-3.5	2	5	7	1	1	0	2			3-3.5	0	1	3	5	1	1	0		3-3.5	0	0	3	0	0	0	0			3-3.5	0	0	7	0	4	0	0			
4-5.5	0	1																																															

DECEMBER



1

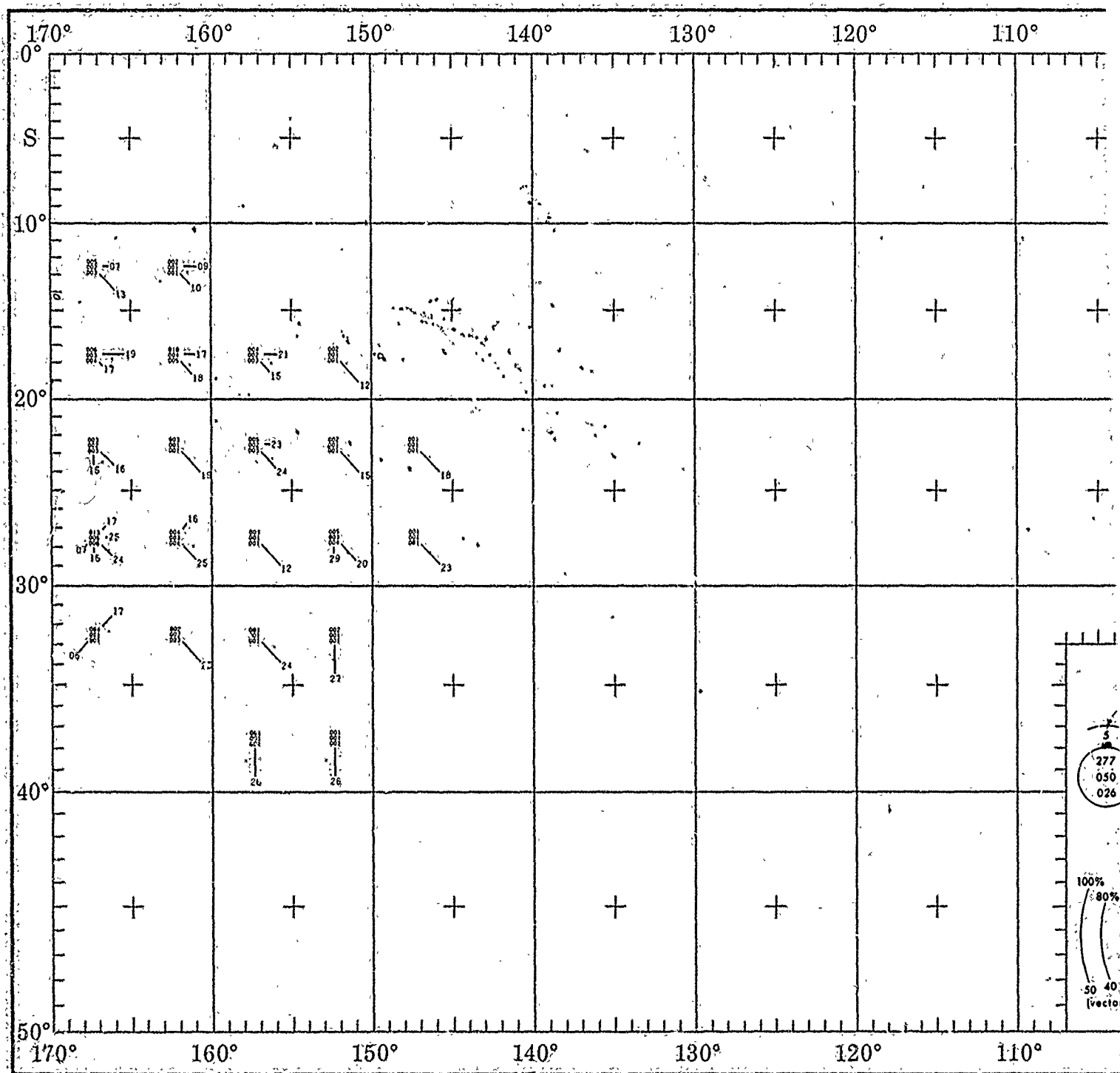
TROPICAL CYCLONE



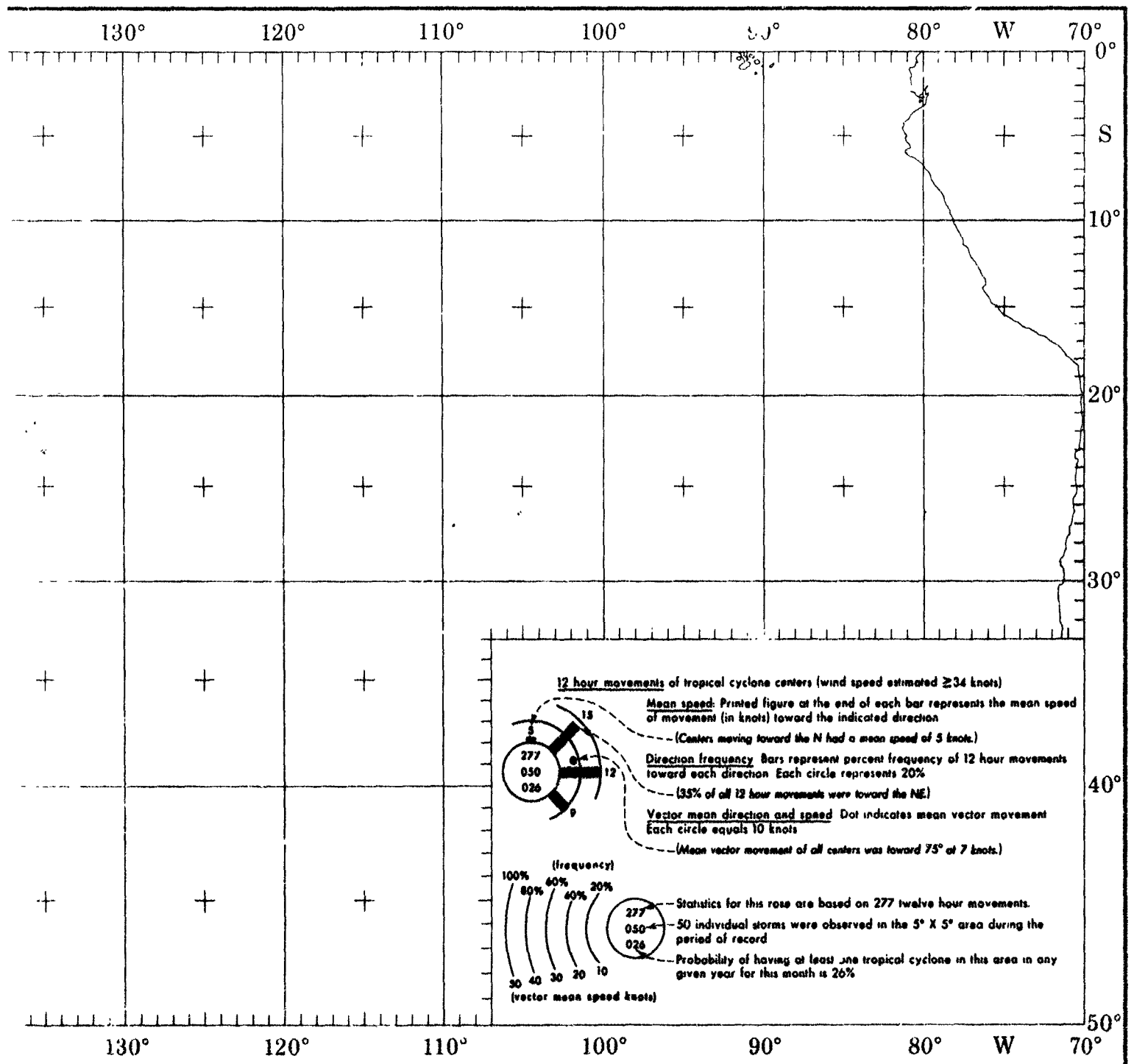
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TROPICAL CYCLONE

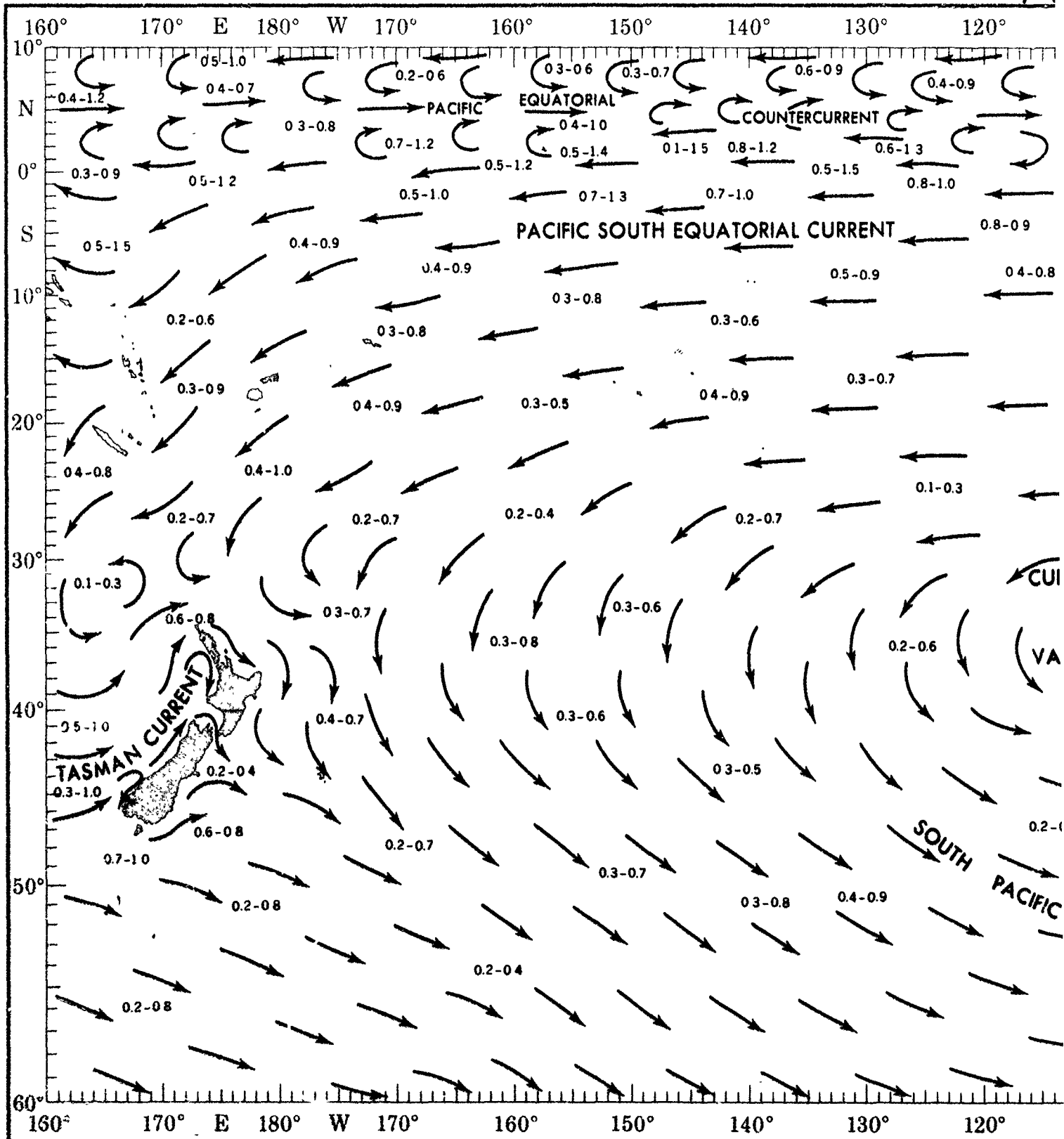


DECEMBER



PART II OCEANOGRAPHY

FIG. 1 PREVAILING SURFACE CURRENTS SUMMER, (



150° 140° 130° 120° 110° 100° 90° 80° 70°

10° N

0°

10° S

20°

30°

40°

50°

60° S

150° 140° 130° 120° 110° 100° 90° 80° 70°

0.3-0.7 0.6-0.9 0.4-0.9 0.4-1.0 0.6-0.9 0.6-0.9 0.6-0.9 0.4-1.5

0.1-1.5 0.8-1.2 0.6-1.3 0.8-1.0 1.0-1.2 0.9-1.1 0.5-1.0 0.4-1.5

0.7-1.3 0.7-1.0 0.8-0.9 0.8-0.9 0.4-0.8 0.2-0.6 0.3-1.0

0.5-0.9 0.4-0.8 0.3-0.7 0.2-0.3 0.2-0.6

0.3-0.6 0.3-0.7 0.2-0.4 0.2-0.5 0.1-0.7

0.4-0.9 0.3-0.7 0.2-0.4 0.2-0.5 0.1-0.3

0.2-0.7 0.2-0.5 0.1-0.7 0.3-0.8

0.3-0.6 0.2-0.7 0.2-0.5 0.1-0.7 0.3-0.8

0.6 0.3-0.5 0.3-0.8 0.2-0.7 0.2-0.8

0.3-0.7 0.3-0.8 0.4-0.9 0.3-0.8 0.2-0.7 0.2-0.9

0.3-0.8 0.4-0.9 0.3-0.8 0.2-0.7 0.2-0.9

0.2-0.4 0.2-0.4 0.6-0.9

COUNTERCURRENT

SOUTH EQUATORIAL CURRENT

PERU CURRENT

CAPE HORN CURRENT

SOUTH PACIFIC CURRENT

MENTOR CURRENT

CURRENTS WEAK and VARIABLE

See Pages 345-346

INSET A

INSET B

Prevailing current direction

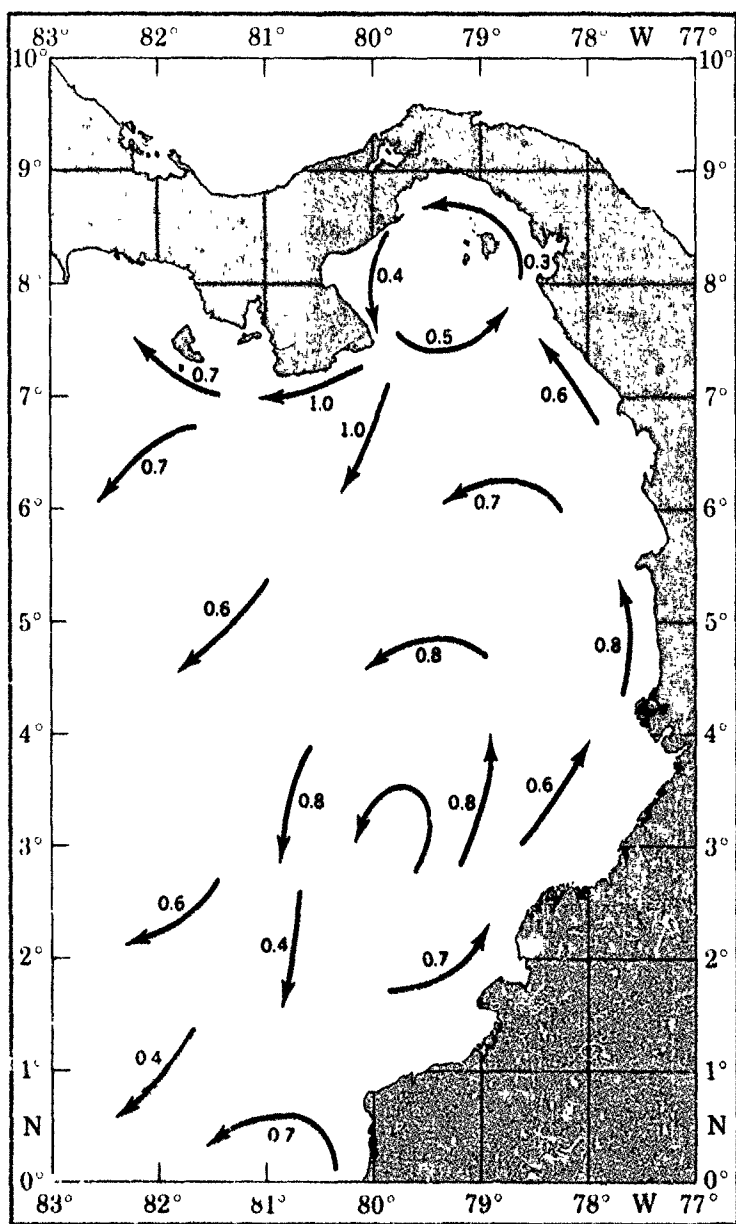
Numbers indicate mean speed range in knots


1

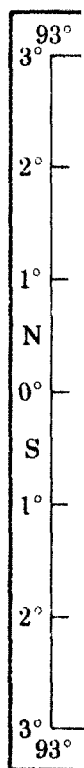
2

FIG. 2 PREVAILING SURFACE CURRENTS (INSETS)

INSET A

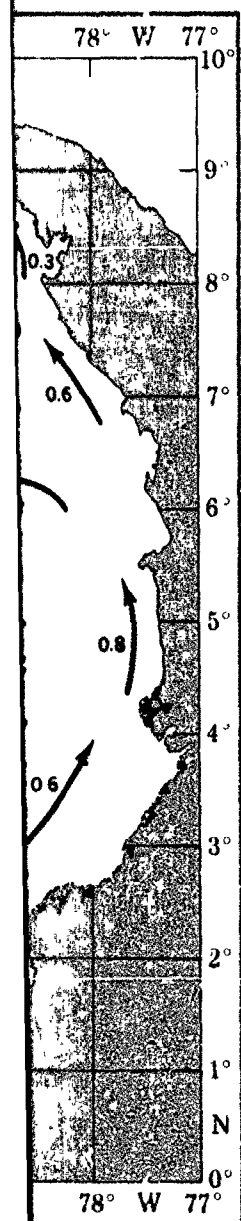


 Prevailing current direction
 Numbers indicates mean speed in knots

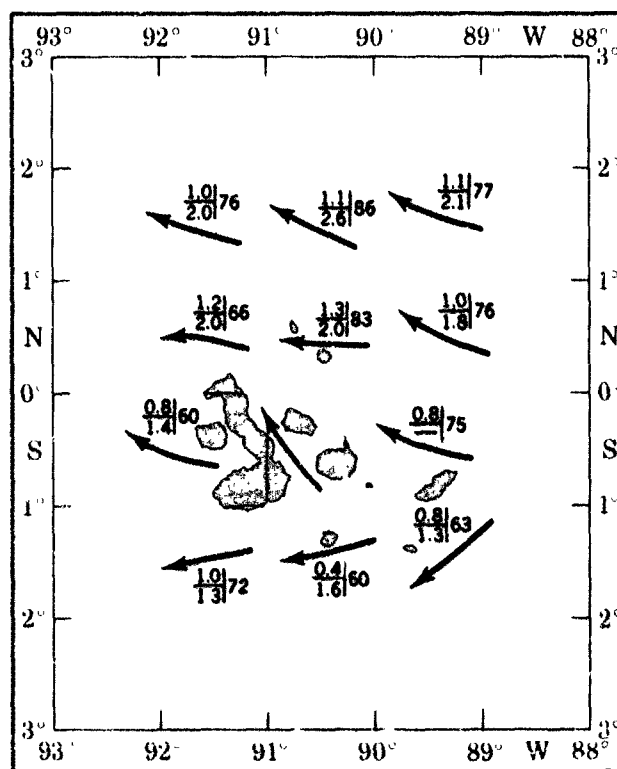


RFACE CURRENTS (INSETS)

SUMMER



INSET B



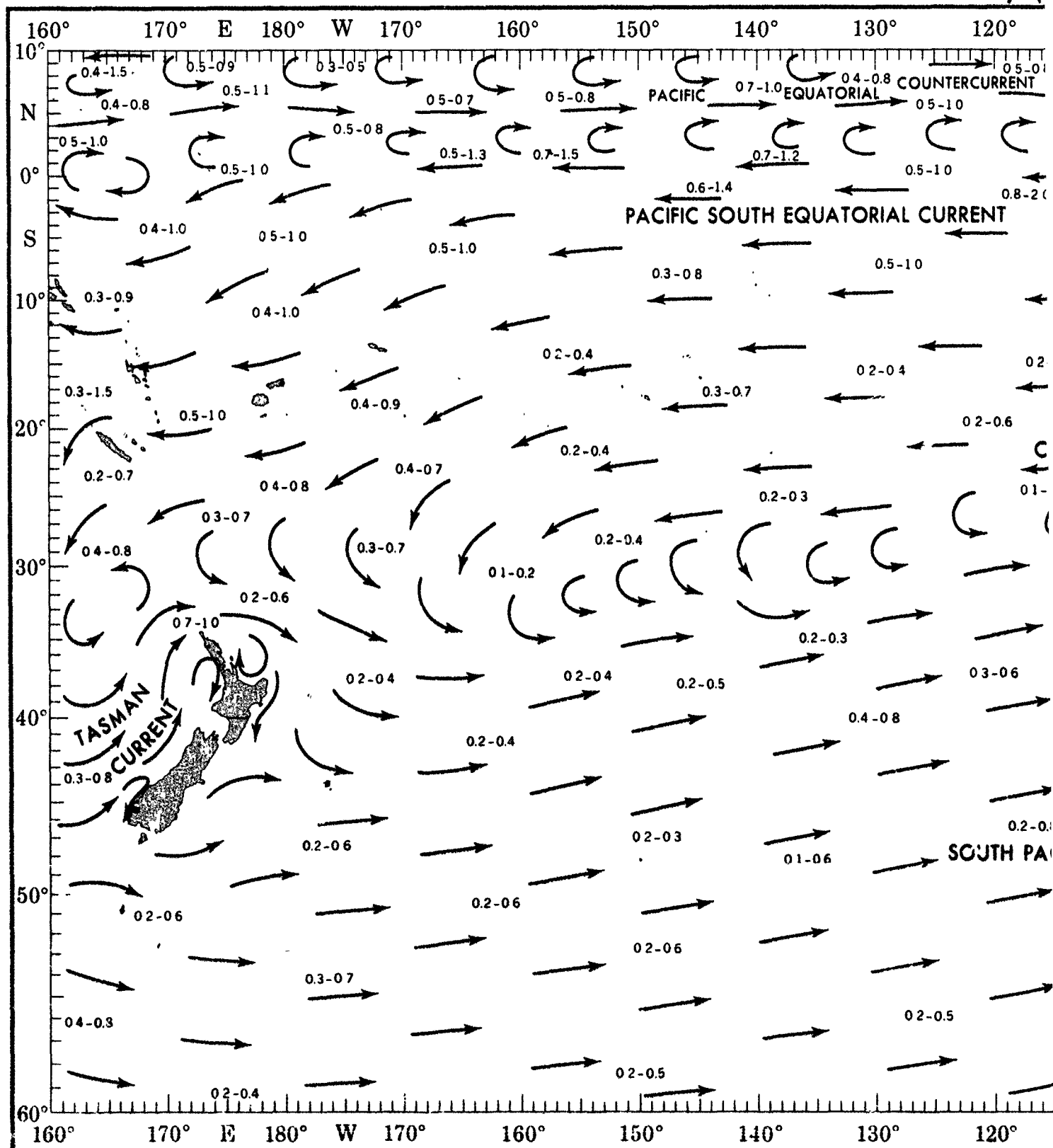
← Prevailing current direction

12 Mean speed in knots

$\frac{12}{23}$ 45 23 Maximum speed observed

45 Percent frequency of current set

FIG. 3 PREVAILING SURFACE CURRENTS WINTER, (



CE CURRENTS WINTER, (JUN., JUL., AUG.)

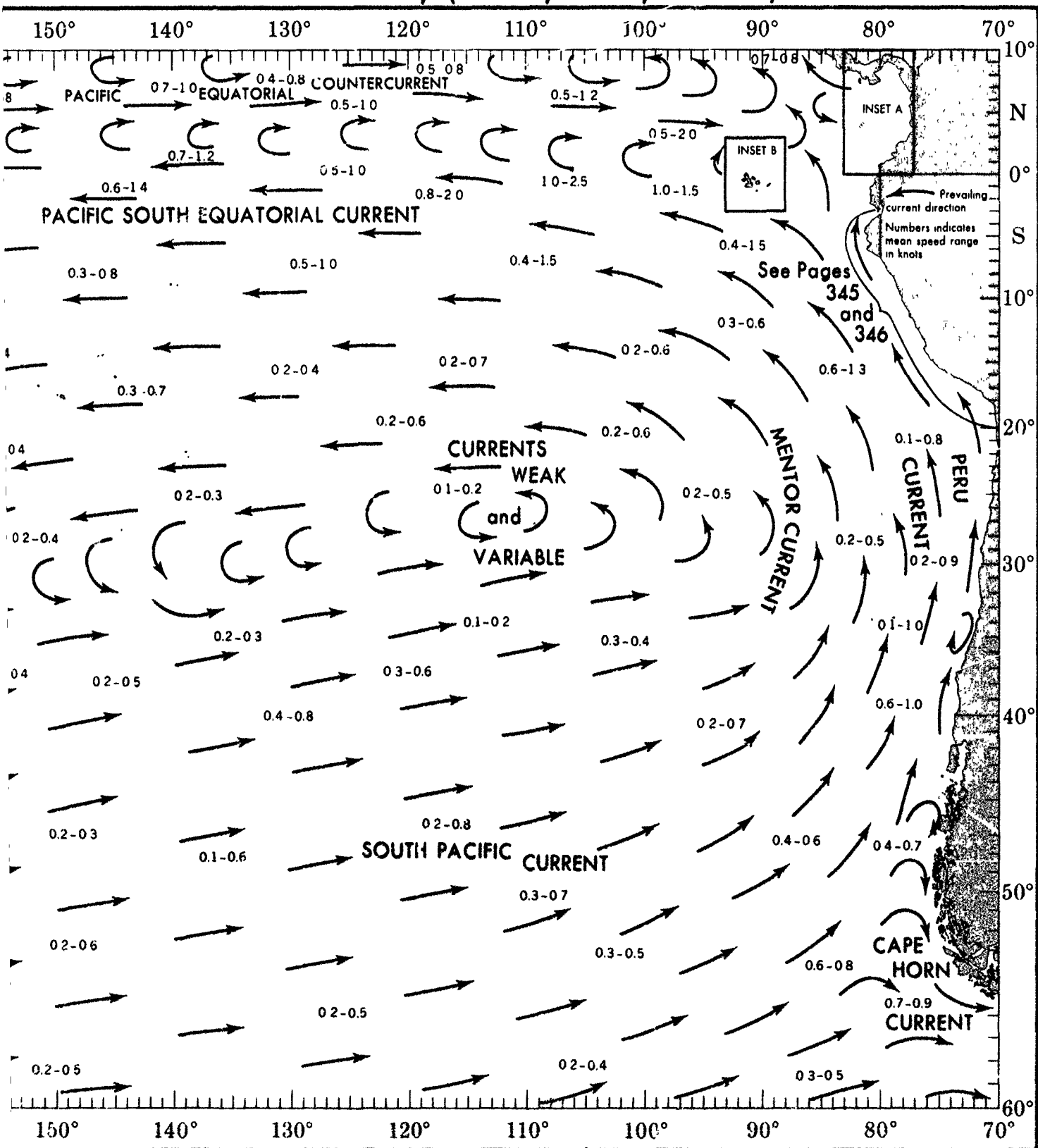
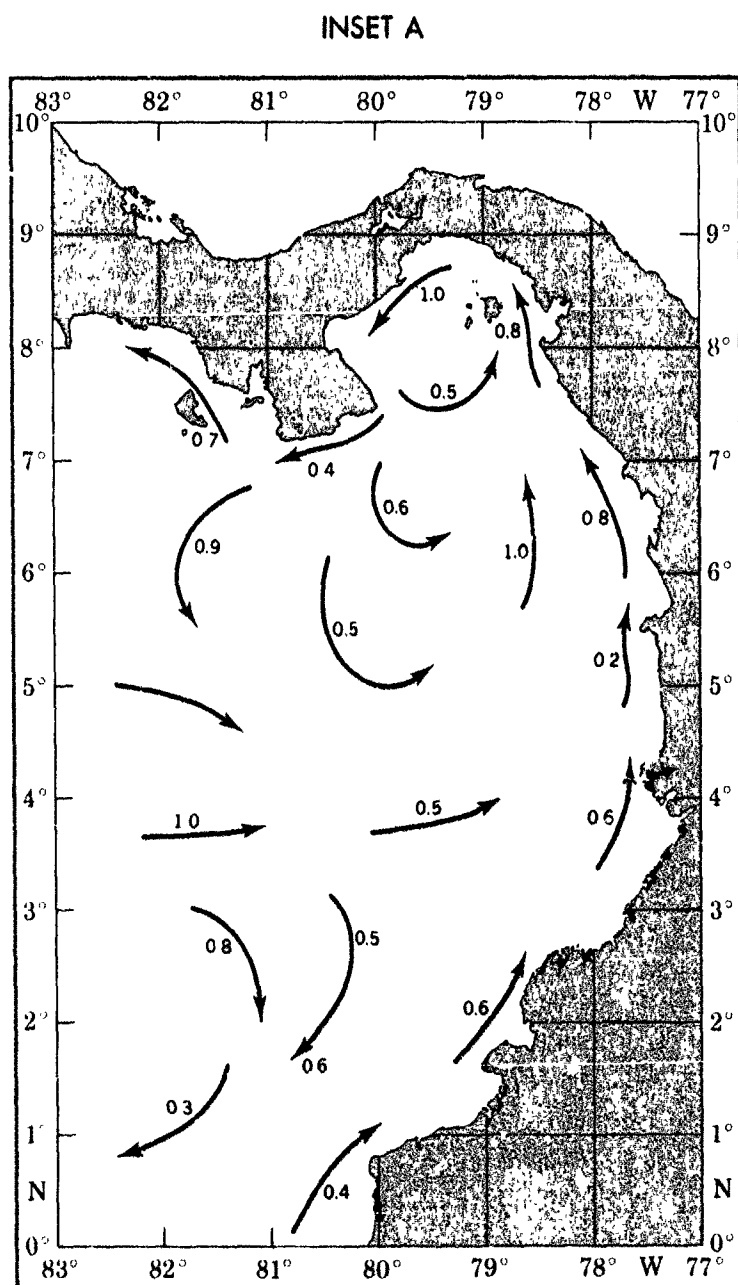


FIG. 4 PREVAILING SURFACE CURRENTS (INSETS)

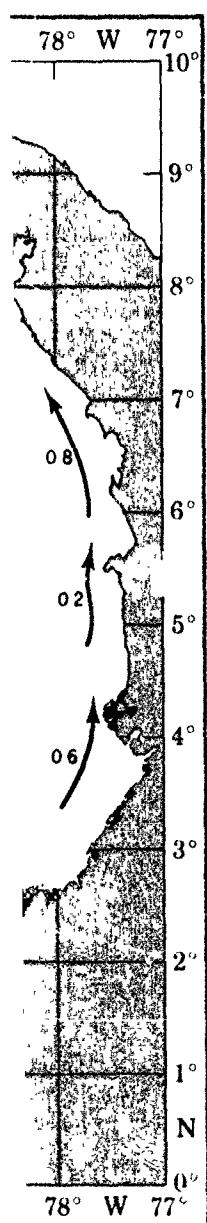


3°
2°
1°
N
0°
S
1°
2°
3°
9°

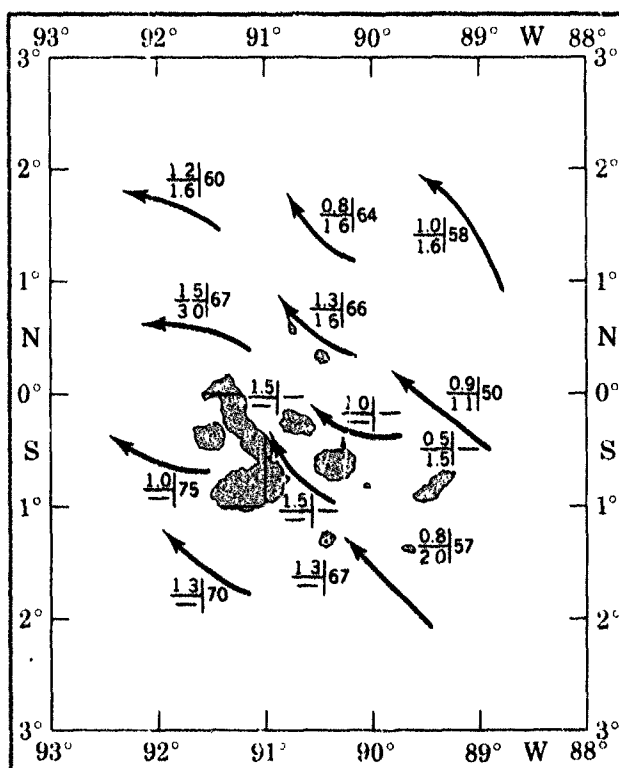
7

FACE CURRENTS (INSETS)

WINTER



INSET B



← Prevailing current direction
 1.2 Mean speed in knots
 1.5/3.0 Maximum speed observed
 45 Percent frequency of current set

11

1 2

FIG. 5 MAJOR OCEANIC CURRENTS

The South Equatorial Current sets west from South America to the western Pacific, occupying a belt between about 4° N and 10° S. Part of the current turns south at about 175° W and joins the counterclockwise gyral of the South Pacific.

In the Tasman Sea between Australia and New Zealand the currents are variable but an east set generally predominates. Part of the East Australia Current branches and flows east toward New Zealand. The major part of this current, however, continues south until it merges with the east-setting West Wind Drift. The combined currents flow northeast along the west and east coasts of South Island.

The seasonal circulation around New Zealand in summer and winter are shown in Figures 1 and 3; current speeds are generally higher in summer. The prevailing current direction shows little seasonal change along the west coasts of the islands, but the current tends northeast in July and southeast in January along the east and south coasts.

The currents in the New Zealand area are greatly influenced by winds and show considerable variability in direction and speed. The current usually sets northeast along the west coasts of the islands. Along the east coasts the currents vary seasonally, being strongest in summer when the maximum speed is about 15 knots along the northeast coast of North Island. Occasionally currents exceeding 20 knots are observed north of North Cape.

Close to shore along the west coast of South Island from about Jacksons Bay to the southwestern extremity of the island, the current sets almost continuously south at speeds averaging 0.5 to 1.0 knot throughout the year. The current farther seaward sets north.

A branch of the general north-setting current that flows past the northern part of the west coast of South Island turns east and flows through Cook Strait. The southeast set out of the strait is most apparent in summer.

Between East Cape and Gable End Foreland, a constant current sets south outside the 100-fathom line, its speed averages about 10 knot, but greater speeds occur after strong southerly winds. From Cape Kidnappers to Cape Palliser the current is variable; it sets south after southerly gales, sometimes at a speed of 10 knot, but seldom lasts for more than one day.

A branch mer, the speed winds, and off about 10 knot sula a south se ward Ninety N

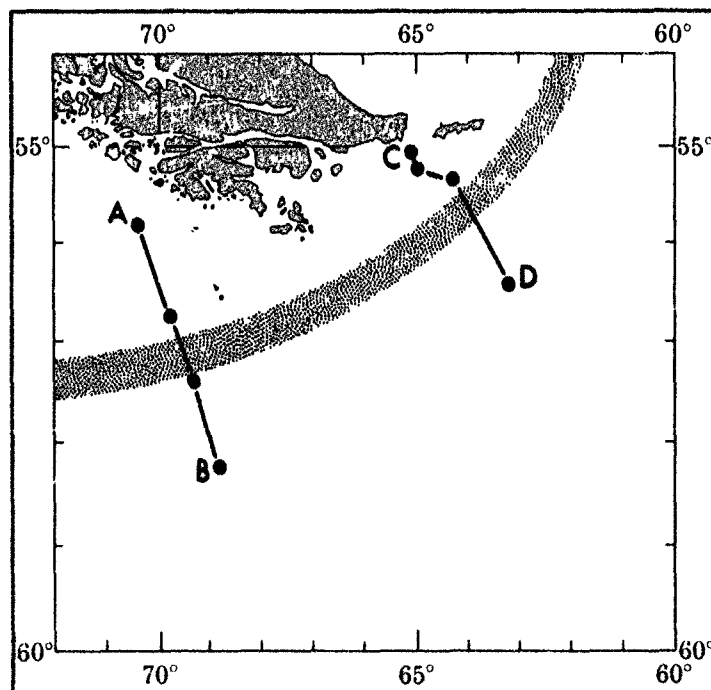
Currents c inate between direction To th December to Fi

South of t lands at speed: the Southern H cold water flow considerably to than in the ape

Because a Drift is not well flow joins the s shown in Figur Peru Currents.

The Cape enters Drake P: The set then ve to a width of a speeds in the fi

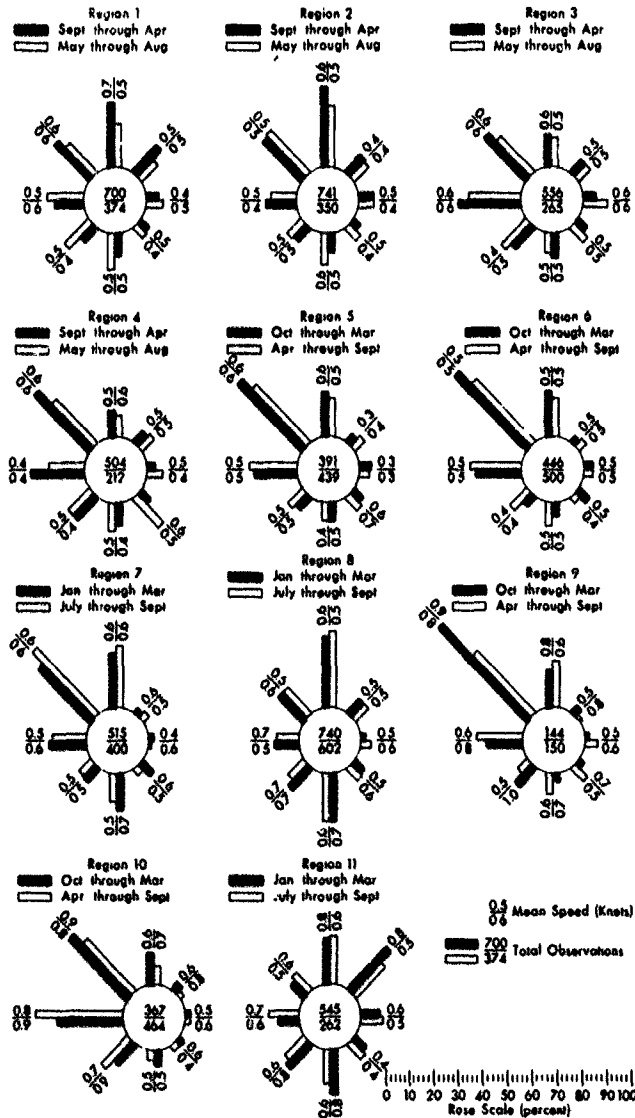
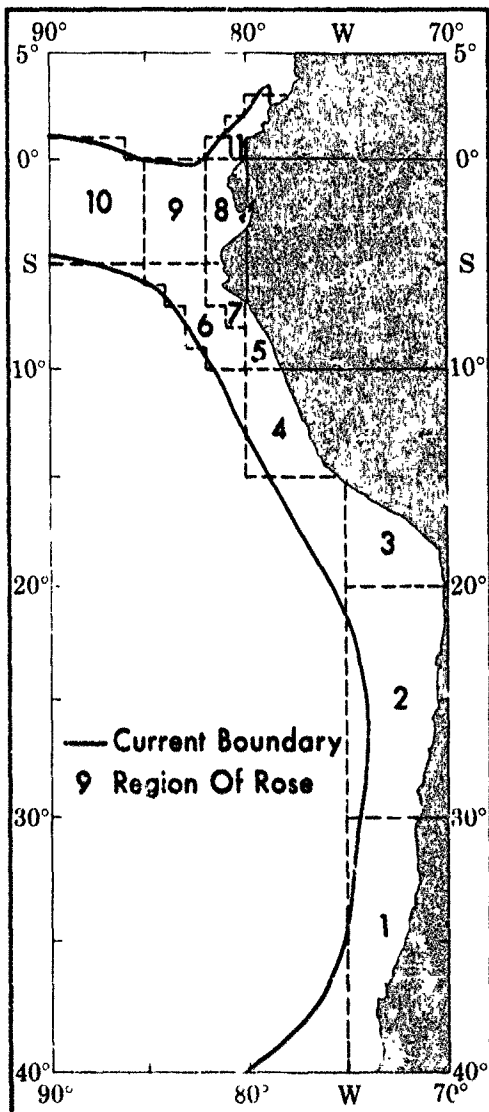
COMPUTED CURRENT SPEED PROFILES, CAPE



- Station location
- ▨ Approximate boundary of Cape Horn current
- A-B Limits of cross section
- 40 Current speed (CM/SEC)

FIG. 5 MAJOR OCEANIC CURRENTS (Cont'd)

SURFACE FLOW OF PERU COASTAL CURRENT

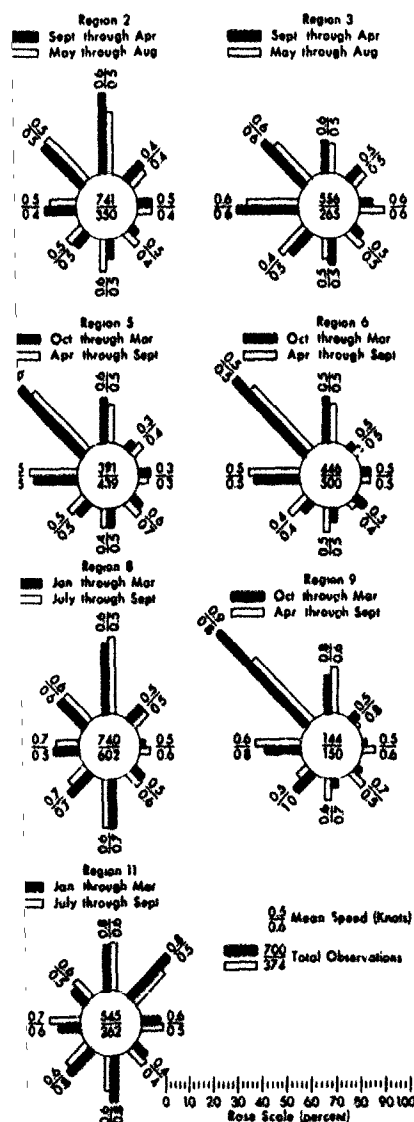


The Peru Current is 40° S and flows past Peru shore current referred to distinction is made principally based on persistence and mean speed of 0.9 knot. The surface current. What seasonal variation south of 10° S during the ranging between 0.2 and 1 knot and the Galapagos. In some regions, however, frequently flow close to shoreward, and there is no south flow.

El Niño is generally identified at about seven year intervals. In December the northerly current flows southward in considerably in some years and the Peru Current is diminished, the results in a layer of warm water. The origin of this flow is not to weaken, close to shore south of the Pacific Equatorial Counter. The southward excursion of the easterly trade wind regime. The Peru Oceanic Current (Drift) at about 40° S, 90° W. It extends about 900 miles by winds. It joins the west-setting Ocean. The speed in the central. A seasonal current rose for significant percent frequency of the rose for region 2 in the adjacent. The complicated pattern of speed of 0.4 knot between 22° S. Years during which El Niño 1953, 1957, 1965, 1967. *Exceptionally strong

CURRENTS (Cont'd)

CURRENT



PERU CURRENT

The Peru Current is a narrow, fairly stable current that flows northward close to the South American coast; it originates from about 40° S and flows past Peru and Ecuador to the southwest extremity of Columbia. The Peru Current occupies two distinct regions, the inshore current referred to as the Peru Coastal Current, and the offshore current described as the Peru Oceanic Current. However, the distinction is made principally from the biological characteristics in the upper layers. Peru Current shown in the figure to the left, is based on persistence and speed. The most outstanding current in the Southern Hemisphere, the Peru Current, is not very strong but has a mean speed of 0.9 knot in the northern region where the flow is most persistent.

The surface current shows a high constancy throughout the greater part of its length and is little affected by latitude or season. What seasonal variation does occur is shown in the surface current roses in the figure to the left, the current tends to be most variable south of 10° S during the southern winter and north of 10° S during the southern summer. The current most frequently flows at speeds ranging between 0.2 and 1.4 knots, being strongest off the Peru coast; maximum speeds occur at its northern extremity between the continent and the Galapagos Archipelago. The currents are stronger near shore and weaken with increasing distance from shore.

In some regions, however, the current is very weak, with eddies occurring at irregular intervals; south setting countercurrents frequently flow close to shore as indicated by the south component of the surface current roses. Because of the moderate speed and variability of the Peru Current, its exact west boundary is difficult to determine; the flow west of the Peru Current is also markedly northward, and there is no sudden change between the coastal zone of more persistent flow and the oceanic region of less stable or weaker flow.

EL NIÑO

El Niño is generally identified with large-scale disturbances which occur in the northern part of the Peru Current in certain years, reportedly at about seven year intervals. However, El Niño is an event which has been observed in late December quite frequently.

In December the northerly winds blowing across Central America drive water from the Gulf of Panama southward along the Peru coast. This current flows southward in a tongue-shaped band 1 to 2 miles wide between 3° and 6° S. The intensity of this phenomenon increases considerably in some years and influences a larger part of the northern nearshore portion of the Peru Current than usual. During such periods the Peru Current is diminished, the temperature of the surface water rises sharply, and the southward flow extends as far as 20° S. This condition results in a layer of warm water about 75 feet deep and as wide as 20 miles.

The origin of this flow is not definitely known, but northwesterly winds that penetrate farther south than usual do cause the Peru Current to weaken; close to shore a south-setting flow develops as the cool Peru Current is replaced by warm water with characteristics similar to those of the Pacific Equatorial Countercurrent.

The southward excursion of El Niño is most prevalent January through March, after which it is halted by the reappearance of the southeasterly trade wind regime.

The Peru Oceanic Current originates mainly from the easternmost extension of the South Pacific Current (located north of the West Wind Drift) at about 40° S, 90° W. It sets north and northwest and has the characteristic features of a drift in that it is a broad, slow-moving flow that extends about 900 miles westward from the Peru Coastal Current to about 90° W at its widest section and tends to be easily influenced by winds. It joins the west-setting South Equatorial Current and completes the anticyclonic movement in the eastern part of the South Pacific Ocean. The speed in the central part of the current at about 26° S, 80° W may at times attain about 0.9 knot.

A seasonal current rose for a region within the center of the current, shown in the left hand figure on the following page, indicates a significant percent frequency of westward flow, which becomes greater westward as current speed decreases. Comparison of this rose with the rose for region 2 in the adjacent Peru Coastal Current shows the differences in speed and direction between the two currents.

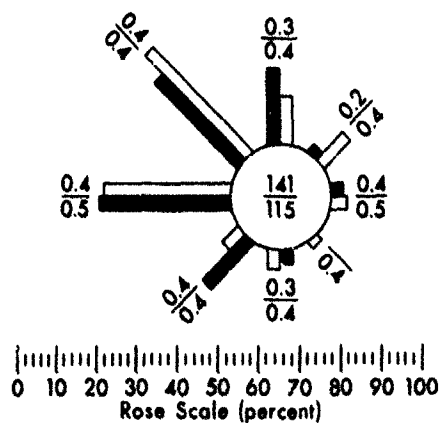
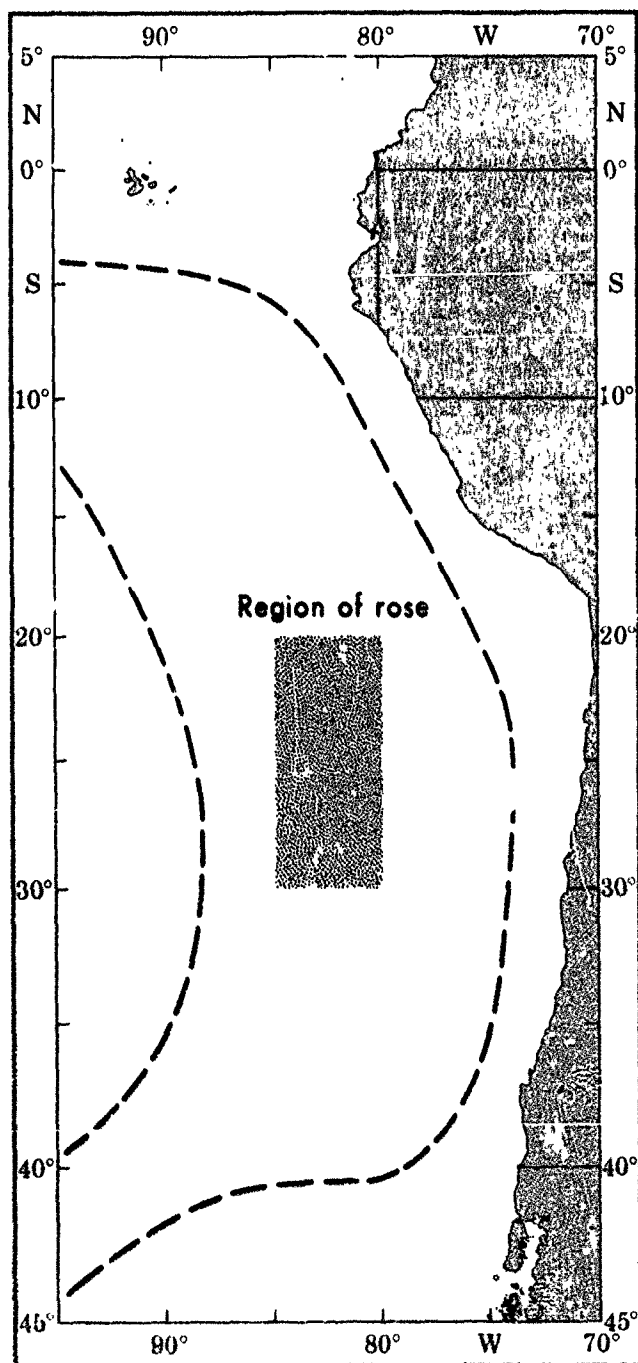
The complicated pattern of upwelling and wind results in variable current speeds between 0.0 and 1.5 knots near 13° 42' S and a mean speed of 0.4 knot between 22° 36' S and 33° 00' S. Countercurrents may occur near shore.

Year during which El Niño has been recorded with greater than usual intensity are: 1891*, 1911, 1918, 1922, 1925*, 1932, 1939, 1941*, 1953, 1957, 1965, 1967.

*Exceptionally strong

FIG. 5 MAJOR OCEANIC CURRENTS (Cont'd)

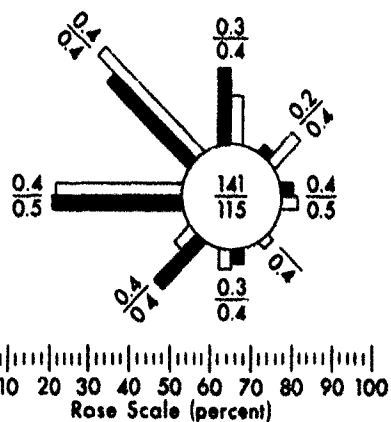
DIRECTIONS, SPEEDS, AND BOUNDARIES OF THE PERU OCEANIC CURRENT



- Frequency summer (Oct-Mar.)
- Frequency winter (Apr-Sept)
- 0.3 0.4 Mean speed (knots) Summer Winter
- 141 115 Total observations Summer Winter
- Current boundary

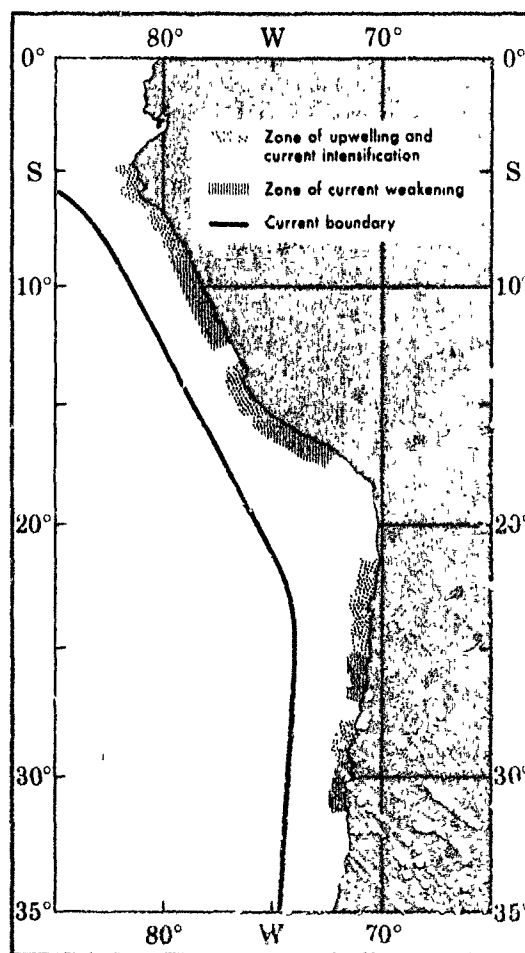
CURRENTS (Cont'd)

PERU OCEANIC CURRENT



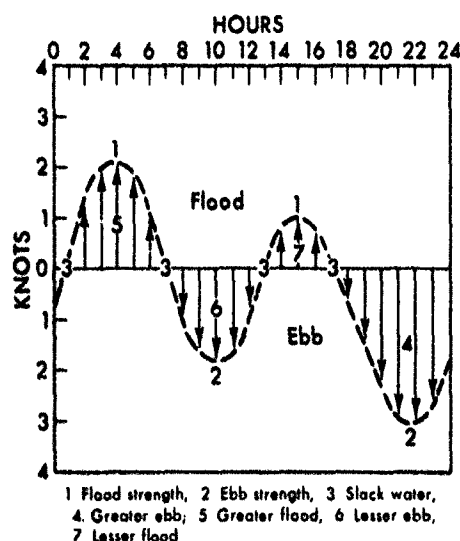
- Frequency summer (Oct-Mar)
- Frequency winter (Apr-Sept)
- 0.3 Summer
0.4 Winter Mean speed (knots)
- 141 Summer
115 Winter Total observations
- Current boundary

UPWELLING AND WEAKENING OF PERU COASTAL CURRENT

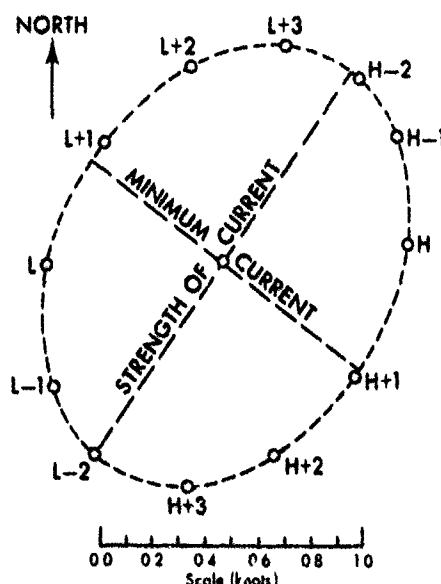


Observations have shown that the current close to shore is under the nearly continuous influence of small-scale upwelling. Steady southerly winds along the coast tend to force the surface water offshore and produce continuous vertical circulation. Upwelling occurs between about 30° and 5° S as shown in the figure above, and is limited mainly to the upper 200 to 300 meters. South of 15° S, upwelling is less intense.

FIG. 6 TIDAL CURRENTS AND TIDES



CURRENT CURVE



CURRENT ELLIPSE

a West coast of C
South of about
ity between the height
maximum north or so
shore islands, the tide
the heights of success
may exceed 16 feet
Large tsunamis,
such waves have rea
b New Zealand a
Semidiurnal tide
30° S are mixed exci
regions of types of ti
In New Zealand
ranges. The tidal mov
age the tide range is
whereas the smallest
Figure 7 shows
both locations. In gen
ranges are about 7 to
strictly passages or u
tide is found in Austral
The tidal progre
coasts, turns near Nor
c Generally, maxi
Changes in wind
etric pressure tend to

TIDAL CURRENT

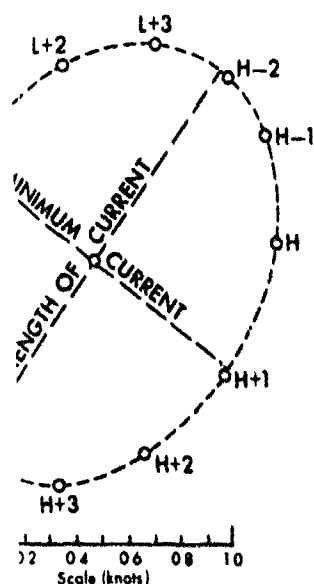
Tidal current is the alternating horizontal movement of water associated with the vertical rise (flood) and fall (ebb) of the tide caused by the astronomical tide producing forces. Reversing tidal currents set in approximately opposite directions separated by periods of slack water. Flood current is toward shore and associated with the rising tide, whereas ebb current is away from shore and associated with falling tide. The relation of current to tide is not constant, but varies from place to place, and the time of slack water does not generally coincide with the time of high or low water, nor does the time of maximum speed of the current usually coincide with the time of most rapid change in the vertical height of the tide. At stations located on a tidal river or bay the time of slack water may differ from 1 to 3 hours from the time of high or low water. Currents are frequently disturbed by wind or variations in river discharge. In open offshore areas where the direction of flow is not restricted, the tidal current is rotary and continually changes direction through all points of the compass during the tide cycle.

The change in direction is generally clockwise in the Northern Hemisphere and counterclockwise in the Southern Hemisphere. The speed of the current usually varies throughout the tide cycle, passing through two maximums and two minimums in approximately opposite directions. In nearshore coastal regions the characteristics of tidal currents will depend on local topography such as rough or shallow bottom, river entrances, and restrictive straits. The outstanding feature of tidal currents is diurnal inequality, i.e., the difference in speed of two consecutive flood or two consecutive ebb maximums. This inequality varies directly with the moon's declination, consequently it tends to disappear when the moon is near the equator. When the moon is farthest north or south of the equator the inequality is greatest and in some areas such as the Solomon Islands the current is diurnal.

For detail information on tidal currents the reader should consult the pilots, atlases, and tidal current prediction tables published by the various national agencies.

↑

S AND TIDES



URRENT ELLIPSE

TIDES

a West coast of Central and South America

South of about 6° S, the tide is mainly mixed, two high waters and two low waters occur each tidal day, with a marked diurnal inequality between the heights of successive high and successive low waters. This inequality, principally in the high waters, is largest near times of maximum north or south declination and smallest near times of equatorial (0°) declination. North of 6° S, between 40° to 47° S, and at offshore islands, the tide is semidiurnal, two high waters and two low waters occur each tidal day, with little or no diurnal inequality between the heights of successive high and successive low waters. Tide ranges vary along the coast and are highest in the northern part where they may exceed 16 feet in the Gulf of Panama.

Large tsunamis, or waves resulting from the submarine earthquakes, have been recorded along the coast of Peru. Reports indicate that such waves have reached heights of about 80 feet, flooding the coast at Callao as far as 6 miles inland.

b New Zealand and Pacific Islands

Semidiurnal tides occur throughout New Zealand, neighboring islands, and Samoa. Tides at Pacific Islands west of 130° W and north of 30° S are mixed except in the Solomon Islands where they are mainly diurnal (one high and one low water daily). Typical tide curves, and regions of types of tides are shown in Figure 7. Tide ranges are given in Table 1.

In New Zealand, the larger ranges do not always occur at springs, since perigee neap ranges are generally larger than apogee spring ranges. The tidal movements, therefore, are strongly dependent upon the moon's changing distance from the earth. When the moon is at perigee the tide range is large, and when it is at apogee the range is small. The largest tide ranges occur near perigee and new or full moon, whereas the smallest tides occur near apogee and quadrature.

Figure 7 shows typical spring and neap tide curves for Auckland and Bluff Harbour representing approximate extreme conditions at both locations. In general, tide ranges are larger along the west coasts of North and South Islands than along the east coasts. The spring ranges are about 7 to 11 feet along the west coasts, but vary from about 4 to 7 feet along the east coasts. Exceptions may be found in constricted passages or inlets. The smallest tide occurs at Wellington where the spring range is 3.4 feet and the mean range 3.2 feet. The largest tide is found in Astrolabe Road where the spring range is 15.4 feet and the mean range 12.3 feet.

The tidal progression is counterclockwise around New Zealand. High water begins near Stewart Island, passes north along the east coasts, turns near North Cape, and then continues south along the west coasts. The progression through Cook Strait is southeast to northwest.

c Generally, maximum tide ranges occur near times of new and full moon

Changes in winds and barometric pressure cause deviations from daily predicted water levels. Prolonged onshore winds or low barometric pressure tend to raise the water level; offshore winds or high barometric pressure tend to lower it.

and fall (ebb) of the tide caused by separation by periods of slack water and associated with falling tide.

does not generally coincide with the time of most rapid change in the current. 1 to 3 hours from the time of offshore areas where it is direction of the compass during the tidal cycle in the Southern Hemisphere. The speed is in approximately opposite directions as rough or shallow bottom river entrance in speed of two consecutive frequently it tends to disappear when greatest and in some areas such as

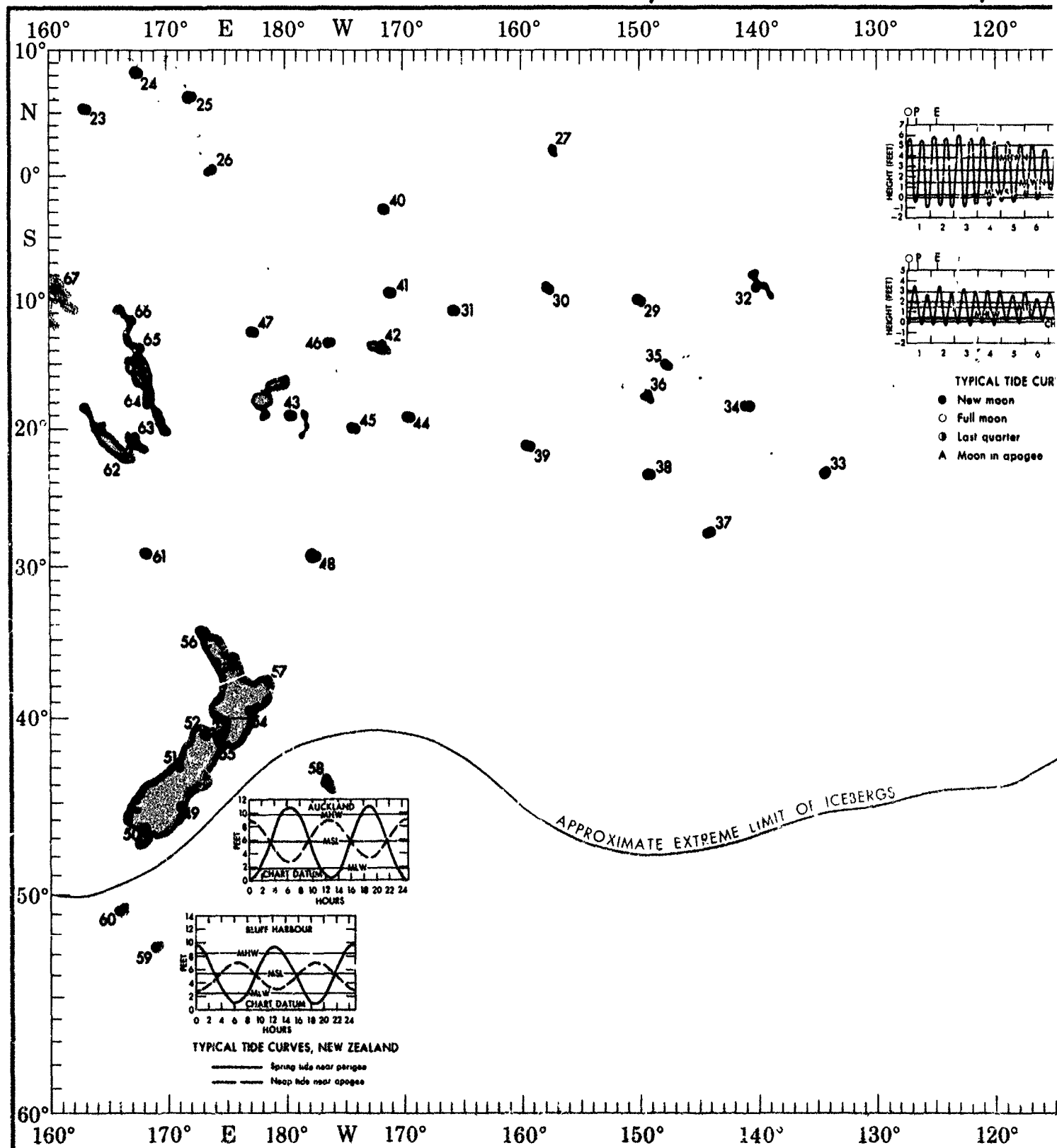
of prediction tables published by the

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FIG. 7 TYPICAL TIDE CURVES, TYPES OF TIDES, AND



CURVES, TYPES OF TIDES, AND ICE

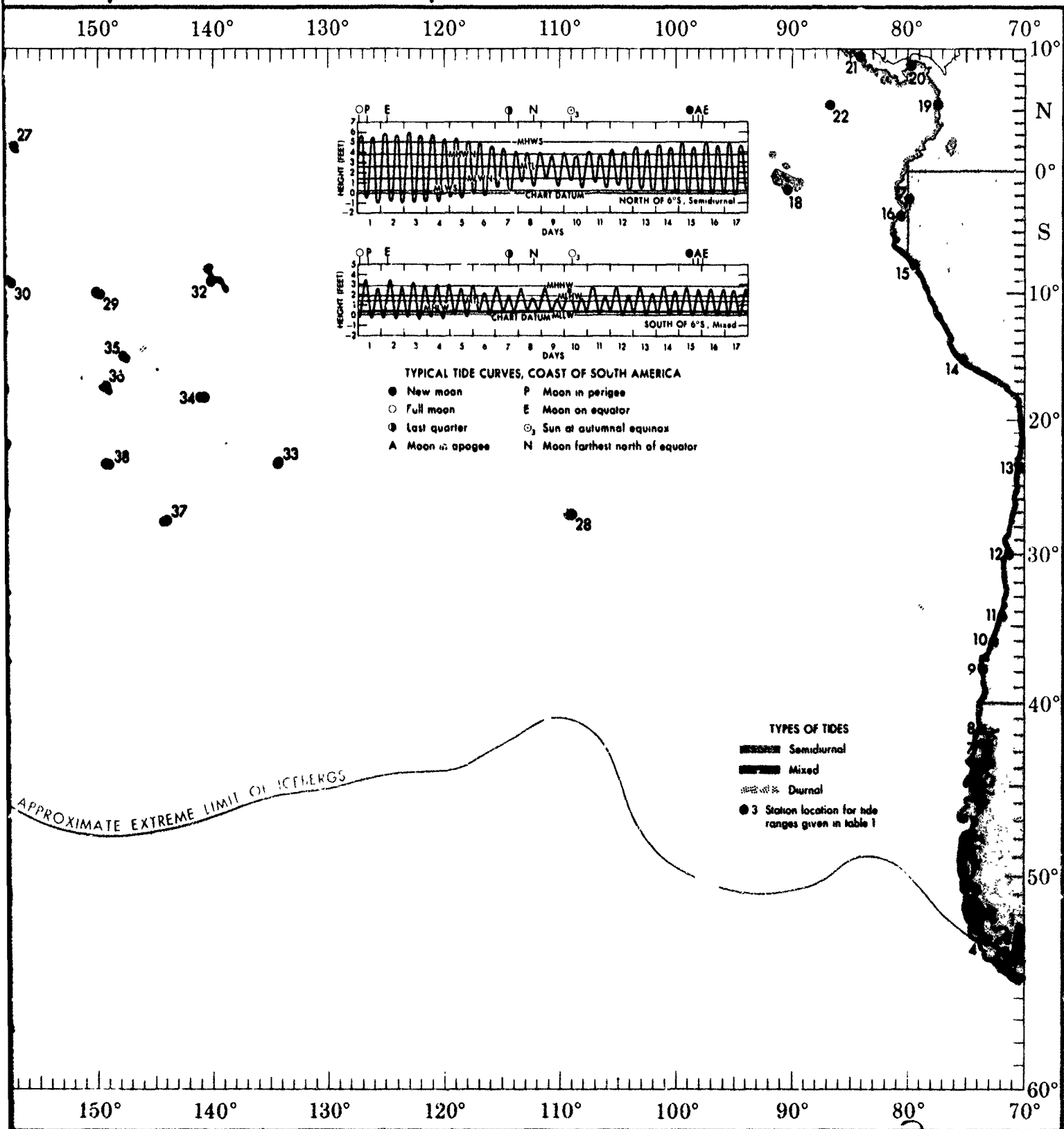


TABLE 1 TIDE RANGES

STATION NAME	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	

③ Station Location See Figure 7

ARGENTINA, Tierra del Fuego	°	°	feet	feet	feet
SEGUNDA ANGOSTURA-----①--	52 45S	70 18W	16.0	20.3	12.8
Puerto Zenteno-----	52 47S	70 46W	4.5	5.8	4.4
BAHIA GENTE GRANDE-----②--	53 03S	70 16W	6.3	7.4	5.0
Punta Arenas-----	53 09S	70 54W	3.8	4.9	4.0
Puerto del Hambre-----	53 38S	70 55W	3.6	4.7	3.9
Puerto San Antonio-----	53 53S	70 54W	3.8	5.0	4.5
Bahia Snug-----	53 51S	71 25W	4.3	5.6	5.2
BAHIA WOOD-----③--	53 49S	71 38W	4.3	5.6	5.2
Puerto Gallant-----	53 42S	72 00W	4.3	5.6	5.2
Bahia Borja-----	53 32S	72 30W	4.5	5.0	2.4
Bahia Swallow-----	53 30S	72 47W	4.5	5.0	2.4
Caleta Playa Parda-----	53 19S	73 01W	3.5	4.0	1.9
PUERTO ANGOSTO-----④--	53 14S	73 22W	3.6	4.0	2.0
Caleta Sylvia-----	52 58S	73 33W	3.8	4.3	2.2
Puerto Tamar-----	52 56S	73 46W	4.1	4.6	3.7
Islote Pollo, Canal Smyth-----	52 23S	73 41W	3.4	4.3	3.1
Punta Ancud, Canal Smyth-----	52 43S	73 49W	3.4	4.1	3.1
Bahia Tuesday-----	52 51S	74 27W	4.0	4.5	3.6
Cabo Pillar-----	52 43S	74 42W	3.6	4.0	2.0
CHILE, Coast					
Isla Noir-----	54 29S	73 00W	4.3	4.8	2.3
Isles Week-----	53 12S	74 21W	4.2	4.7	2.4
Evangelistas-----	52 24S	75 06W	3.9	4.4	2.7
Angostura Guila-----	50 45S	74 24W	7.9	---	---
Puerto Henry, Golfo Trinidad-----	50 00S	75 20W	4.5	5.0	2.4
ANGOSTURA INGLESA-----⑤--	48 59S	74 24W	5.3	6.0	2.9
Puerto Barbara, Canal Fallos-----	48 02S	75 24W	5.3	6.0	2.9
Puerto Barroso, Golfo de Penas-----	46 49S	75 17W	5.3	6.0	2.9
Puerto Slight, Golfo Tres Montes-----	46 49S	75 33W	2.8	3.8	2.7
Caleta Pascuas, Bahia San Andres-----	46 36S	75 31W	4.3	4.8	2.3
Puerto Refugio-----	45 52S	74 47W	4.3	4.9	2.4
Puerto Yates-----	45 26S	74 26W	6.3	8.0	5.7
Rada Vallendar-----	45 19S	74 32W	4.8	6.0	3.0
Puerto Italiano, Canal Darwin-----	45 22S	74 08W	5.0	6.2	3.1
Puerto Lagunas-----	45 17S	73 46W	5.6	7.1	3.5
Puerto Americano-----	45 03S	73 45W	5.2	6.5	3.2
Isla Guamblin-----	44 49S	75 02W	6.4	7.7	3.8
Isla Guafu-----	43 37S	74 36W	5.9	7.5	3.8
Golfo de Corcovado					
Puerto Low-----	43 49S	74 01W	6.4	7.9	3.9
Puerto Melinca-----	43 54S	73 45W	6.7	8.2	4.0
BAHIA TICTOC-----⑥--	43 37S	72 56W	7.0	8.6	4.9
Puerto San Pedro-----	43 20S	73 42W	7.2	8.8	4.6
Puerto Quellon-----	43 07S	73 38W	12.5	15.7	8.2
Puerto Quellon-----	42 54S	73 29W	13.0	16.4	8.2
CASTRO-----⑦--	42 29S	73 46W	14.6	18.4	9.2
Golfo de Ancud					
Puerto Quemchi-----	42 09S	73 29W	15.8	19.7	11.6
Bahia Linao-----	41 56S	73 33W	13.0	16.9	8.5
Paso Lagartija-----	41 50S	73 19W	12.5	16.5	8.2
Paso Tautil-----	41 44S	73 04W	13.0	17.7	11.1
Puerto Montt, Seno Reloncavi-----	41 29S	72 58W	13.2	18.0	11.8
Roca Remolinos, Canal Chacao-----	41 48S	73 32W	12.5	16.9	8.3
Ancud-----	41 52S	73 50W	4.6	6.0	3.6
CARELMAPU, CANAL CHACAO-----⑧--	41 45S	73 42W	6.9	8.8	5.3
Mauillin, Rio Mauillin-----	41 37S	73 36W	6.1	7.0	3.9
Corral, Bahia Corral-----	39 52S	73 26W	3.2	4.0	4.3
Valdivia, Rio Valdivia-----	39 49S	73 15W	3.0	3.9	2.0
Queule-----	39 23S	73 14W	3.8	4.9	2.4
Rio Imperial entrance-----	38 48S	73 23W	3.8	4.9	2.4

STATION NAME	POSITION		RANGES	
	Lat.	Long.	Mean	Spring

③ Station Location See Figure 7

CHILE, Coast—Continued	°	°	feet	feet
Caleta La Hacienda, Isla Mocha-----	38 20S	73 56W	4.0	5.2
PUERTO LEBU-----⑨--	37 37S	73 41W	3.8	4.9
Puerto Yane-----	37 22S	73 40W	3.8	4.9
Isla Santa Maria-----	36 59S	73 32W	4.8	6.2
Bahia Lota, Bahia Arauco-----	37 06S	73 10W	3.8	4.9
Talcahuano, Bahia Concepcion-----	36 42S	73 06W	3.2	4.3
Bahia Collumo-----	36 32S	72 55W	3.8	4.9
BUCHUPUREO-----⑩--	36 04S	72 47W	1.7	2.1
Curanipe-----	35 49S	72 36W	3.0	3.9
Constitucion, Rio Maule entrance-----	35 19S	72 24W	3.8	4.9
Llico-----	34 45S	72 07W	3.8	4.9
Rada Pichilemu-----	34 23S	71 59W	3.9	5.0
RADA TOPOCALMA-----⑪--	34 07S	72 00W	3.8	4.9
San Antonio-----	33 35S	71 38W	3.9	5.0
Algarrobo-----	33 21S	71 41W	3.0	3.9
Rada Quintay-----	33 11S	71 42W	3.9	5.0
Valparaiso-----	33 02S	71 38W	3.0	3.9
Quintero-----	32 46S	71 32W	3.8	4.9
Zapallar-----	32 32S	71 29W	3.8	4.9
Papudo-----	32 30S	71 28W	3.8	4.9
Pichidangui-----	32 09S	71 33W	3.8	4.9
Los Vilos-----	31 54S	71 32W	3.6	4.6
Caleta Oscuro-----	31 25S	71 37W	3.6	4.6
Bahia Tongoy-----	30 15S	71 31W	3.8	4.9
COQUIMBO-----⑫--	29 56S	71 20W	2.9	3.8
Caleta Totoralillo-----	29 29S	71 20W	3.8	4.9
Huasco-----	28 28S	71 14W	2.7	3.5
Carrizal Bajo-----	28 04S	71 11W	2.3	2.9
Caleta Barranquillas-----	27 31S	70 56W	2.3	2.9
Caldera-----	27 04S	70 50W	2.8	3.6
Puerto Flamenco-----	26 34S	70 44W	2.7	3.5
Chanaral de las Animas-----	26 21S	70 35W	2.6	3.4
Taital-----	25 25S	70 29W	2.6	3.4
Paposo-----	25 02S	70 28W	2.6	3.4
Blanco Encalada-----	24 22S	70 32W	2.7	3.5
ANTOFAGASTA-----⑬--	23 39S	70 25W	2.6	3.4
Mejillones del Sur-----	23 06S	70 28W	3.6	4.7
Cobija-----	22 34S	70 18W	3.0	3.9
Tocopilla-----	22 06S	70 14W	3.0	3.9
Caleta Lobos-----	21 05S	70 11W	2.9	3.8
Iquique-----	20 12S	70 10W	2.4	3.1
Caleta Junin-----	19 40S	70 12W	2.4	3.1
Pisagua-----	19 35S	70 13W	3.0	3.9
Arica-----	18 28S	70 20W	2.4	3.1
PERU				
Ilo-----	17 38S	71 21W	2.3	2.9
Matarani-----	17 00S	72 07W	2.1	2.7
PUERTO SAN JUAN-----⑭--	15 21S	75 09W	1.8	2.4
Pisco-----	13 43S	76 14W	1.9	2.5
Callao-----	12 03S	77 09W	1.3	2.4
Huacho-----	11 07S	77 37W	2.0	2.6
Bahia Huarmey-----	10 06S	78 10W	2.2	2.9
Chimbote-----	9 05S	78 38W	2.3	3.1
PUERTO CHICAMA-----⑮--	7 42S	79 27W	2.7	3.5
Punta Eten-----	6 57S	79 52W	3.0	3.9
Bayovar-----	5 50S	81 03W	3.5	4.5
Palta-----	5 05S	81 17W	3.8	4.9
Talara-----	4 35S	81 17W	4.0	5.2
Caleta Lobitos-----	4 27S	81 17W	4.1	5.3
ZORRITOS-----⑯--	3 40S	80 40W	4.7	6.0

STATION NAME ③ Station Location See Figure 7	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	
CHILE, Coast—Continued					
Caleta La Hacienda, Isla Mocha-----	38 20S	73 56W	4.0	5.2	2.6
PUERTO LEBU-----⑨	37 37S	73 41W	3.8	4.9	2.7
Puerto Yane-----	37 22S	73 40W	3.8	4.9	2.4
Isla Santa Maria-----	36 59S	73 32W	4.8	6.2	3.1
Bahia Lota, Bahia Arauco-----	37 06S	73 10W	3.8	4.9	2.4
Talcahuano, Bahia Concepcion-----	36 42S	73 06W	3.2	4.3	3.0
Bahia Coliumo-----	36 32S	72 58W	3.8	4.9	2.4
BUCHUPUREO-----⑪	36 04S	72 47W	1.7	2.1	1.0
Curanipe-----	35 49S	72 36W	3.0	3.9	2.0
Constitucion, Rio Maule entrance-----	35 19S	72 24W	3.8	4.9	2.4
Llico-----	34 45S	72 07W	3.8	4.9	2.4
Rada Pichilemu-----	34 23S	71 59W	3.9	5.0	2.4
RADA TOPOCALMA-----⑪	34 07S	72 00W	3.8	4.9	3.0
San Antonio-----	33 35S	71 38W	3.9	5.0	2.4
Algarrobo-----	33 21S	71 41W	3.0	3.9	3.0
Rada Quintay-----	33 11S	71 42W	3.9	5.0	2.4
Valparaiso-----	33 02S	71 38W	3.0	3.9	3.0
Quintero-----	32 46S	71 32W	3.8	4.9	4.1
Zapallar-----	32 32S	71 29W	3.8	4.9	2.4
Papudo-----	32 30S	71 28W	3.8	4.9	2.4
Pichidangui-----	32 09S	71 33W	3.8	4.9	2.4
Los Vilos-----	31 54S	71 32W	3.6	4.6	3.7
Caleta Oscuro-----	31 25S	71 37W	3.6	4.6	2.4
Bahia Tongoy-----	30 15S	71 31W	3.8	4.9	2.4
COQUIMBO-----⑫	29 56S	71 20W	2.9	3.8	2.9
Caleta Totoralillo-----	29 29S	71 20W	3.8	4.9	2.4
Huasco-----	28 28S	71 14W	2.7	3.5	2.3
Carrizal Bajo-----	28 04S	71 11W	2.3	2.9	1.9
Caleta Barranquillas-----	27 31S	70 56W	2.3	2.9	2.4
Caldera-----	27 04S	70 50W	2.8	3.6	3.0
Puerto Flamenco-----	26 34S	70 44W	2.7	3.5	2.7
Chanaral de las Animas-----	26 21S	70 38W	2.6	3.4	2.7
Taltal-----	25 25S	70 29W	2.6	3.4	2.6
Paposo-----	25 02S	70 28W	2.6	3.4	2.6
Blanco Encalada-----	24 22S	70 32W	2.7	3.5	2.7
ANTOFAGASTA-----⑬	23 39S	70 25W	2.6	3.4	2.6
Mejillones del Sur-----	23 06S	70 28W	3.6	4.7	2.4
Cobija-----	22 34S	70 18W	3.0	3.9	2.0
Tocopilla-----	22 06S	70 14W	3.0	3.9	2.5
Caleta Lobos-----	21 05S	70 11W	2.9	3.8	2.9
Iquique-----	20 12S	70 10W	2.4	3.1	3.0
Caleta Junin-----	19 40S	70 12W	2.4	3.1	2.4
Pisagua-----	19 35S	70 14W	3.0	3.9	3.1
Arica-----	18 28S	70 20W	2.4	3.1	2.6
PERU					
Ilo-----	17 38S	71 21W	2.3	2.9	1.5
Matarani-----	17 00S	72 07W	2.1	2.7	1.4
PUERTO SAN JUAN-----⑭	15 21S	75 09W	1.8	2.4	1.2
Pisco-----	13 43S	76 14W	1.9	2.5	1.3
Callao-----	12 03S	77 09W	1.8	2.4	1.7
Huacho-----	11 07S	77 37W	2.0	2.6	1.3
Bahia Huarmey-----	10 06S	78 10W	2.2	2.9	1.5
Chimbote-----	9 05S	78 38W	2.3	3.1	2.2
PUERTO CHICAMA-----⑮	7 42S	79 27W	2.7	3.5	1.7
Punta Eten-----	6 57S	79 52W	3.0	3.9	1.9
Bayovar-----	5 50S	81 03W	3.5	4.5	2.2
Palta-----	5 05S	81 07W	3.8	4.9	2.4
Talara-----	4 35S	81 17W	4.0	5.2	2.6
Caleta Lobitos-----	4 27S	81 17W	4.1	5.3	2.6
ZORRITOS-----⑯	3 40S	80 40W	4.7	6.0	3.0

STATION NAME ③ Station Location See Figure 7	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	
ECUADOR					
Puerto Bolívar-----	3 16S	80 01W	7.3	9.4	4.7
Puna-----	2 44S	79 55W	9.5	12.3	6.2
GUAYAQUIL-----⑪	2 12S	79 52W	10.8	12.1	6.0
La Libertad, Bahía de Santa Elena-----	2 13S	80 55W	5.4	7.0	3.5
Puerto de Cayo-----	1 21S	80 45W	6.0	7.7	3.9
Bahía Manta-----	0 57S	80 44W	6.3	8.0	4.0
Río Chone-----	0 35S	80 26W	6.8	8.6	4.3
Cabo Pasado-----	0 21S	80 31W	6.6	8.2	4.1
Río Santiago-----	1 13N	79 07W	8.0	10.0	5.0
San Lorenzo-----	1 15N	78 50W	8.9	11.0	5.5
Galapagos Islands					
Isla San Cristobal-----	0 54S	89 37W	4.8	6.1	3.1
ISLA SANTA MARIA-----⑫	1 14S	90 27W	4.0	5.0	2.5
Bahía Isabela, Isla Isabela-----	0 36S	91 05W	3.8	4.8	2.4
Caleta Tagus, Isla Isabela-----	0 15S	91 22W	4.1	5.2	2.5
Bahía de Perry, Isla Isabela-----	0 34S	90 58W	4.6	5.8	2.9
Caleta Aeolian, Isla Baltra-----	0 26S	90 17W	4.9	6.2	3.0
Bahía de Darwin, Isla Genovesa-----	0 19N	89 57W	5.1	6.4	3.1
COLOMBIA					
Tumaco-----	1 50N	78 44W	8.2	10.2	5.1
Buenaventura-----	3 54N	77 05W	10.4	12.9	6.5
Los Negritos-----	3 54N	77 24W	10.0	12.5	6.3
Río San Juan-----	4 17N	77 30W	10.0	12.5	6.3
BAHIA CUEVITA-----⑬	5 28N	77 31W	10.0	12.8	6.4
Ensenada Utria-----	6 00N	77 21W	10.0	12.8	6.4
Bahía Solano-----	6 14N	77 24W	8.3	10.3	5.1
Bahía Cupica-----	6 41N	77 30W	10.1	13.0	6.5
Bahía Octavia-----	6 52N	77 40W	10.1	13.0	6.5
PANAMA and CANAL ZONE					
Bahía Pina-----	7 34N	78 11W	10.5	13.7	6.8
Punta Garachiné-----	8 05N	78 25W	10.9	14.2	7.0
Isla de Rey-----	8 18N	78 54W	10.7	13.9	6.9
Río Chepo-----	8 59N	79 07W	12.5	16.2	8.1
Balboa, Canal Zone-----	8 57N	79 34W	12.6	16.4	8.2
Naos Island, Canal Zone-----	8 55N	79 32W	12.4	15.6	7.8
Taboga-----	8 48N	79 33W	12.5	16.2	8.1
BAHIA DE CHAME-----⑭	8 41N	79 45W	12.5	16.2	8.1
Punta Mala-----	7 28N	80 00W	8.1	10.5	5.2
Isla Cebaco-----	7 31N	81 13W	8.3	10.8	5.3
Bahía Honda-----	7 46N	81 31W	8.3	10.8	5.3
Isla Parida-----	8 08N	82 19W	8.2	10.0	5.0
Puerto Armuelles-----	8 16N	82 52W	7.6	9.6	4.8
COSTA RICA					
Golfito, Golfo Dulce-----	8 39N	83 11W	7.7	9.5	5.8
Bahía Uvita-----	9 09N	83 45W	7.5	9.2	4.5
QUEPOS-----⑮	9 24N	84 10W	6.8	8.4	4.2
Puerto Herradura-----	9 39N	84 40W	7.5	9.2	4.5
Puntarenas-----	9 58N	84 50W	7.5	9.2	4.6
COCOS ISLAND-----⑯	5 33N	86 59W	7.0	8.5	4.3
LELE HARBOR, KUSALE ISLAND-----⑰	5 20N	163 01E	3.2	4.6	3.0
Marshall Islands					
Ujaelang Atoll-----	9 46N	160 58E	2.8	3.9	2.6
Ujae Atoll-----	9 02N	165 36E	3.5	5.0	3.0
Kwajalein Atoll (Namur Island)-----	9 24N	167 29E	3.5	5.0	3.0
KWJALEIN ATOLL (KWJALEIN I.)-----⑱	8 44N	167 44E	3.5	5.0	3.0
Ailinglapalap Atoll-----	7 17N	168 45E	3.6	5.2	3.3
Jaluit Atoll (SE. Pass)-----	5 55N	169 39E	3.5	4.9	2.9
Ebon (Boston) Atoll-----	4 36N	168 41E	3.4	4.8	3.0
Likiep Atoll-----	9 49N	169 19E	3.6	5.0	3.0
Wotje Atoll-----	9 28N	170 14E	3.4	4.7	2.8

TABLE 1 TIDE RANGES (Con't)

STATION NAME ③ Station Location See Figure 7	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	
Marshall Islands—Continued					
Erikub Atoll-----	9 12N	169 55E	3.5	4.9	3.0
Malaelap Atoll-----	8 43N	171 14E	3.7	5.1	3.0
Majuro Atoll-----	7 07N	171 22E	3.7	5.3	3.2
Arno Atoll-----	7 08N	171 42E	4.2	5.7	3.2
PORT RHIN, MILI ATOLL-----②5	6 14N	171 48E	4.2	5.9	3.3
Gilbert Islands					
Makin Atoll-----	3 02N	172 48E	4.3	6.1	3.3
Tarawa Atoll-----	1 22N	172 56E	4.4	6.2	3.3
ABEMAMA ATOLL-----②6	0 28N	173 50E	4.3	6.1	3.3
Nonouti Atoll-----	0 40S	174 27E	4.4	6.2	3.5
Ocean Island-----	0 52S	169 35E	3.7	5.2	3.4
Detached Islands					
Howland Island-----	0 48N	176 38W	5.0	6.2	3.1
Palmyra Island-----	5 53N	162 05W	2.0	2.7	1.0
CHRISTMAS ISLAND-----②7	1 59N	157 28W	1.9	2.3	1.2
Fanning Island-----	3 51N	159 22W	1.2	1.6	1.2
SOUTH PACIFIC GROUPS					
Detached Islands					
EASTER ISLAND-----②8	27 09S	109 27W	1.5	1.9	1.5
CAROLINE ISLAND-----②9	10 00S	150 14W	0.9	1.1	0.9
PENRHYN (TONGAREVA) ISLAND-----③0	9 00S	157 59W	0.7	0.8	1.3
Manihiki-----	10 25S	161 01W	0.3	0.4	1.0
PUKAPUKA-----③1	10 52S	165 53W	1.0	1.2	1.5
Suvarov Island-----	13 13S	163 09W	1.4	1.9	1.5
Marquesas Islands					
TAIO HAE BAY, NUKU HIVA ISLAND-----③2	8 56S	140 06W	3.2	3.8	2.4
Vai Tahu, Tahu Ata Island-----	9 56S	139 06W	2.5	3.1	2.4
Tuamotu or Low Archipelago					
MANGAREVA ISLAND-----③3	23 08S	134 58W	1.8	2.3	1.3
HAO (BOW OR LA HARPE) ISLAND-----③4	18 04S	140 59W	1.9	2.4	1.7
RAHIROA (RANGIROA) ISLAND-----③5	14 57S	147 44W	1.7	2.1	1.7
Society Islands					
Papeete Harbor, Tahiti Island-----	17 32S	149 34W	0.8	1.1	0.5
PAPEARI HARBOR, TAHITI ISLAND-----③6	17 45S	149 22W	0.8	1.1	0.5
Borabora Island-----	16 30S	151 46W	0.5	0.7	---
Tubuai or Austral Islands					
RAPA (OPARO) ISLAND-----③7	27 36S	144 17W	1.9	2.4	1.7
TUBUAI ISLAND-----③8	23 22S	149 28W	1.9	2.4	1.7
Cook Islands					
Aitutaki Island-----	18 51S	159 47W	1.2	1.4	1.5
AVARUA, RAROTONGA-----③9	21 12S	159 46W	1.8	2.2	1.0
Phoenix Islands					
CANTON ISLAND-----④0	2 48S	171 43W	2.5	3.4	2.1
Tokelau Islands					
FAKAOFO ISLAND-----④1	9 23S	171 15W	1.9	2.4	1.7
Asau Harbor, Savali Island-----	13 30S	172 38W	3.1	3.9	1.6
APIA (OBSERVATORY), UPOLO ISLAND-----④2	13 48S	171 46W	2.6	3.2	1.6
Pago Pago Harbor, Tutuila Island-----	14 17S	170 41W	2.5	3.1	1.2
Tau Island, Manua Islands-----	14 13S	169 32W	3.7	4.6	1.8
Ellice Islands					
Fongafale, Funafuti Atoll-----	8 32S	179 12E	4.1	5.6	2.8
Fiji Islands					
Tai Levu, Viti Levu Island-----	17 39S	178 35E	3.6	4.4	3.0
Nandi Waters, Viti Levu-----	17 45S	177 26E	4.1	4.9	3.3
Ngaloa Harbor, Kandavu Island-----	19 05S	178 11E	4.4	5.1	2.6
Matuku Island-----	19 10S	179 45E	3.4	4.1	3.0
TOTOYA ISLAND-----④3	18 59S	179 53W	3.8	4.1	3.0
Moala Island-----	18 32S	179 58E	4.4	4.9	3.0
Suva Harbor, Viti Levu Island-----	18 09S	178 26E	3.6	4.0	3.0

STATION NAME ③ Station Location See Figure 7	POSITION		RANGES	
	Lat.	Long.	Mean	Spring
Fiji Islands—Continued				
Ngau Island-----	18 00S	179 14W	3.4	3.7
Nairai Island-----	17 48S	179 23W	3.4	3.7
Levuka, Ovalau Island-----	17 41S	178 51W	3.6	4.3
Nandi, Vanua Levu Island-----	16 58S	178 47W	3.2	3.9
Tonga Islands				
NIUE ISLAND-----	19 02S	169 55W	2.2	2.4
Neiafu-----	18 39S	173 59W	3.0	3.4
LIFUKA ISLAND-----	19 48S	174 21W	2.9	3.2
Nomuka-----	20 16S	174 48W	3.3	3.8
Nukualofa-----	21 08S	175 12W	3.5	4.0
Detached Islands				
WALLIS ISLANDS-----	13 22S	176 11W	3.7	4.6
ROTUMAH ISLAND-----	12 29S	177 07E	3.5	4.7
RAOUL OR SUNDAY ISLAND-----	29 15S	177 57W	3.0	3.3
NEW ZEALAND, South Island				
Paterson Inlet, Stewart Island-----	46 54S	168 07E	5.5	6.4
Akaroa-----	43 48S	172 55E	5.8	6.3
Timaru-----	44 24S	171 15E	5.3	5.8
OAMARU-----	45 06S	170 58E	4.6	5.3
Otago Harbor entrance-----	45 47S	170 44E	5.1	5.6
Port Chalmers, Otago Harbor-----	45 49S	170 39E	5.1	5.7
Dunedin, Otago Harbor-----	45 53S	170 33E	5.2	5.7
Nugget Point-----	46 26S	169 48E	5.1	5.8
Waipapa Point-----	46 39S	168 51E	6.1	6.8
Bluff-----	46 36S	168 20E	6.1	7.2
New River-----	46 32S	168 15E	7.0	7.9
COLAC BAY-----	46 22S	167 54E	5.6	6.8
Preservation Inlet-----	46 04S	166 41E	5.7	6.7
Dusky Sound-----	45 47S	166 32E	5.3	6.4
Deep Cove-----	45 27S	167 10E	4.7	5.4
Bligh Sound-----	44 53S	167 32E	5.1	6.1
Milford Sound-----	44 40S	167 56E	5.1	6.1
Jackson's Bay-----	43 59S	168 37E	5.3	6.4
Haast River entrance-----	43 50S	169 03E	5.3	6.4
Bruce Bay-----	43 35S	169 36E	5.5	6.6
Okarito-----	43 13S	170 11E	5.6	6.7
HOKITIKA BAR-----	42 43S	170 58E	5.7	7.0
Greymouth-----	42 26S	171 13E	5.9	7.3
Westport-----	41 44S	171 36E	7.8	9.8
West Haven Inlet-----	40 35S	172 32E	7.5	9.0
Motupipi River entrance-----	40 50S	172 51E	11.7	14.0
ASTROLABE ROAD-----	40 58S	173 03E	12.3	15.4
Nelson-----	41 16S	173 16E	9.0	11.6
Croixilles Harbor-----	41 05S	173 42E	10.3	12.1
Greville Harbor, D'Urville Island-----	40 52S	173 48E	8.2	10.8
Stephens Island-----	40 40S	174 01E	6.1	7.0
Elmslie Bay-----	40 56S	173 51E	7.7	8.9
Pelorus Sound entrance-----	40 55S	173 59E	6.1	7.2
QUEEN CHARLOTTE SOUND ENTRANCE-----	41 07S	174 17E	3.5	4.7
Picton, Queen Charlotte Sound-----	41 17S	174 00E	3.5	4.8
Cape Campbell-----	41 44S	174 15E	4.3	4.6
Kaikoura Peninsula-----	42 24S	173 42E	4.6	4.9
Lyttelton-----	43 37S	172 43E	6.0	6.4
NEW ZEALAND, North Island				
Gisborne-----	38 41S	178 02E	4.4	4.8
Clyde, Maitoa River-----	39 03S	177 26E	4.5	4.8
NAPIER-----	39 29S	176 55E	4.4	4.6
Cape Palliser-----	41 37S	175 17E	3.5	3.7
WELLINGTON-----	41 17S	174 47E	3.2	3.4

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STATION NAME Station Location See Figure 7	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	
Fiji Islands—Continued			feet	feet	feet
Island-----	18 00S	179 14W	3.4	3.7	2.7
Island-----	17 48S	179 23W	3.4	3.7	2.2
Ovalau Island-----	17 41S	178 51W	3.6	4.3	3.1
Vanua Levu Island-----	16 58S	178 47W	3.2	3.9	2.7
Tonga Islands					
LAND----- (44)	19 02S	169 55W	2.2	2.4	2.4
-----	18 39S	173 59W	3.0	3.4	3.3
ISLAND----- (45)	19 48S	174 21W	2.9	3.2	3.2
-----	20 16S	174 48W	3.3	3.8	3.1
fa-----	21 08S	175 12W	3.5	4.0	3.0
Detached Islands					
ISLANDS----- (46)	13 22S	176 11W	3.7	4.6	2.8
ISLAND----- (47)	12 29S	177 07E	3.5	4.7	2.9
R SUNDAY ISLAND----- (48)	29 15S	177 57W	3.0	3.3	3.3
ZEALAND, South Island					
n Inlet, Stewart Island-----	46 54S	168 07E	5.5	6.4	5.2
-----	43 48S	172 55E	5.8	6.3	3.5
-----	44 24S	171 15E	5.3	5.8	4.5
----- (49)	45 05S	170 58E	4.6	5.3	4.2
arbor entrance-----	45 47S	170 44E	5.1	5.6	3.2
almers, Otago Harbor-----	45 49S	170 39E	5.1	5.7	3.2
-----	45 53S	170 33E	5.2	5.7	3.2
Point-----	46 26S	169 48E	5.1	5.8	4.9
Point-----	46 39S	168 51E	6.1	6.8	5.5
-----	46 36S	168 20E	6.1	7.2	5.4
er-----	46 32S	168 15E	7.0	7.9	5.2
AY----- (50)	46 22S	167 54E	5.6	6.8	4.4
ation Inlet-----	46 04S	166 41E	5.7	6.7	4.0
ound-----	45 47S	166 32E	5.3	6.4	4.0
ve-----	45 27S	167 10E	4.7	5.4	3.9
ound-----	44 53S	167 32E	5.1	6.1	4.0
Sound-----	44 40S	167 56E	5.1	6.1	4.0
's Bay-----	43 59S	168 3/E	5.3	6.4	4.0
iver entrance-----	43 50S	169 03E	5.3	6.4	4.0
ay-----	43 35S	169 36E	5.5	6.6	4.0
A BAR----- (51)	43 13S	170 11E	5.6	6.7	4.1
th-----	42 43S	170 58E	5.7	7.0	4.0
t-----	42 26S	171 13E	5.9	7.3	4.0
ven Inlet-----	41 44S	171 36E	7.8	9.8	5.8
-----	40 35S	172 32E	7.5	9.0	4.9
River entrance-----	40 50S	172 51E	11.7	14.0	8.2
SE ROAD----- (52)	40 58S	173 03E	12.3	15.4	8.2
-----	41 16S	173 16E	9.0	11.6	6.5
les Harbor-----	41 05S	173 42E	10.3	12.1	7.1
e Harbor, D'Urville Island-----	40 52S	173 48E	8.2	10.8	5.3
s Island-----	40 40S	174 01E	6.1	7.0	4.6
Bay-----	40 56S	173 51E	7.7	8.9	4.2
Sound entrance-----	40 55S	173 59E	6.1	7.2	4.4
ARLOTTE SOUND ENTRANCE----- (53)	41 07S	174 17E	3.5	4.7	2.4
Queen Charlotte Sound-----	41 17S	174 00E	3.5	4.8	2.3
apbell-----	41 44S	174 15E	4.3	4.6	3.5
i Peninsula-----	42 24S	173 42E	4.6	4.9	3.5
n-----	43 37S	172 43E	6.0	6.4	3.2
ZEALAND, North Island					
-----	38 41S	178 02E	4.4	4.8	3.8
airoa River-----	39 03S	177 26E	4.5	4.8	3.0
----- (54)	39 29S	176 55E	4.4	4.6	3.0
liser-----	41 37S	175 17E	3.5	3.7	3.0
ON----- (55)	41 17S	174 47E	3.2	3.4	2.9

STATION NAME ③ Station Location See Figure 7	POSITION		RANGES		Mean Tide Level
	Lat.	Long.	Mean	Spring	
NEW ZEALAND, North Island—Continued			feet	feet	feet
Porirua Harbor-----	41 04S	174 51W	3.4	4.8	3.5
Manawatu River entrance-----	40 28S	175 13W	5.3	6.8	4.3
Wanganui River entrance-----	39 57S	174 49W	5.6	7.2	5.1
Opunake Bay-----	39 28S	173 51W	7.9	10.1	6.0
Port Taranaki-----	39 04S	174 02W	8.4	10.6	6.1
Waitara River entrance-----	38 59S	174 14W	8.4	10.5	6.5
Kawhia-----	38 04S	174 49W	7.9	10.0	5.3
Raglan-----	37 48S	174 53W	8.0	10.2	5.2
Waikato River-----	37 24S	174 45W	8.6	10.9	7.0
Manukau Harbor entrance-----	37 03S	174 31W	7.3	9.0	5.9
Cornwallis, Manukau Harbor-----	37 00S	174 36W	8.1	10.0	6.5
Onehunga, Manukau Harbor-----	36 56S	174 47W	9.0	11.1	7.4
Pouto Point, Kaipara Harbor-----	36 22S	174 11W	7.9	9.9	6.2
Martins Bay, Hokitanga River-----	35 32S	173 23W	8.5	10.8	5.8
CAPE MARIA VAN DIEMEN----- (56)	34 29S	172 38W	6.4	7.4	4.5
Parengarenga-----	34 32S	173 00W	5.8	6.9	4.7
Awanui River-----	34 54S	173 18W	5.4	6.3	3.2
Whangaroa-----	35 0°S	173 47W	5.4	6.2	4.4
Port Russell-----	35 16S	174 07W	5.6	6.4	4.6
Whangarei Heads-----	35 49S	174 30W	5.8	6.7	4.6
Port Whangarei, railway wharf-----	35 45S	174 20W	6.6	7.7	5.4
Bon Accord Harbor, Kawau Island-----	36 27S	174 50W	7.1	8.0	5.2
Nagle Cove, Great Barrier I.-----	36 09S	175 21W	5.8	6.6	4.3
Auckland-----	36 51S	174 46W	8.0	9.2	5.8
Waiheke-----	36 47S	175 09W	7.6	8.6	5.6
Coromandel-----	36 46S	175 30W	8.4	9.7	6.2
Mercury Bay-----	36 50S	175 43W	4.8	5.4	4.4
Tauranga Harbor entrance-----	37 39S	176 11W	4.7	5.2	3.6
Ohiwa-----	37 59S	177 07W	4.9	5.3	3.7
EAST CAPE----- (57)	37 41S	178 33W	4.5	5.0	4.2
LESSER ISLANDS, Detached Islands					
CHATHAM ISLANDS----- (58)	43 55S	176 37W	3.4	3.9	2.6
PERSEVERANCE HARBOR, CAMPBELL I.----- (59)	52 34S	169 07E	3.0	3.5	2.3
AUCKLAND ISLAND----- (60)	50 52S	166 05E	2.5	3.2	1.9
NORFOLK ISLAND----- (61)	29 04S	167 56E	4.1	5.0	2.9
New Caledonia					
Port Goro, Toemo Island-----	22 20S	167 01E	2.0	2.6	2.7
NOUMEA----- (62)	22 16S	166 27E	2.9	3.8	4.0
Port Nepui-----	21 21S	164 58E	3.1	4.0	3.7
Paagoumene-----	20 29S	164 11E	3.2	4.1	3.3
Loyalty Islands					
SHEPENEHE ANCHORAGE----- (63)	20 47S	167 08E	4.2	5.4	3.7
New Hebrides Islands					
VILA HARBOR, EFATE ISLAND----- (64)	17 44S	168 19E	2.8	3.5	2.3
Havannah Harbor, Efate Island-----	17 35S	168 15E	2.4	3.0	2.6
Port Sandwich, Malekula Island-----	16 26S	167 47E	2.8	3.8	2.3
Tangoa Island-----	15 35S	166 59E	2.1	2.6	2.1
Espiritu Santo Island, Pekoa Chan-----	15 31S	167 10E	2.9	3.6	2.8
Aesi-----	15 26S	167 14E	3.0	3.8	2.9
Banks Islands					
PORT PATTESON----- (65)	13 51S	167 34E	2.1	2.6	2.0
Santa Cruz Islands					
MANEVAI BAY----- (66)	11 38S	166 55E	2.1	5.6	2.0
Solomon Islands					
Kukum, Guadalcanal Island-----	9 25S	160 01E	1.6	2.3	1.4
PORT PURVIS, FLORIDA ISLAND----- (67)	9 09S	160 15E	2.0	2.3	1.7
Tulagi Island-----	9 06S	160 09E	2.0	2.3	1.7
Auki Harbor, Malaita Island-----	8 47S	160 42E	2.9	4.1	2.6